



OFFICIAL HISTORY OF THE INDIAN ARMED FORCES  
IN THE SECOND WORLD WAR 1939-45

MEDICAL SERVICES

ADMINISTRATION

*Edited by*

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COMBINED INTER SERVICES HISTORICAL SECTION  
INDIA & PAKISTAN

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to all Who Served



# General Preface

The present volume is the first of the series dealing with the medical aspect of the activities of the Indian Armed Forces in the Second World War. The Medical Services series have been edited by Lieut-Colonel B. L. Raina, AMC, Editor, Medical Series, under whose close supervision the work has been completed by the Medical Sub Section of the Combined Inter-Services Historical Section.

The Historical Section was established in 1946 for the purpose of recording the part played by the armed forces of the pre-partition India in the various theatres of the Second World War. Even after the partition of India, the two Dominions, India and Pakistan, agreed to maintain the Historical Section as a joint organisation. But for this it would not have been possible to complete this task.

An endeavour has been made in these volumes to reconcile the requirements of the specialist with the needs of the general reader. The main purpose is to describe the work performed by the Indian Army Medical Services during the six momentous years of the world war. We shall be happy if the present series of volumes would inspire the Medical Services to emulate the achievements of the last decade and seek inspiration from this record to excel the past.

I am thankful to Lieut-General D. R. Thapar for writing a Foreword to this volume. I must also express my sense of gratitude and appreciation to Lieut-Colonel B. L. Raina for the manner in which he has accomplished a difficult task.

NEW DELHI, 1953

Bisheshwar Prasad

## MEDICAL SERIES

ADMINISTRATION

THE CAMPAIGNS IN THE WESTERN THEATRE

THE CAMPAIGNS IN THE EASTERN THEATRE

MEDICINE, SURGERY AND PATHOLOGY

PREVENTION OF DISEASES, MALARIA CONTROL AND NUTRITION

STATISTICS

MEDICAL STORES AND EQUIPMENT

## Foreword

IN this and subsequent volumes of the official medical history of World War II is presented an account of the affairs of the medical services of the armed forces of undivided India (now India and Pakistan) For the first time India has compiled an exhaustive history of the part played by her medical services in war

The value of a history such as this is not to be found in the facts and figures that are presented but in the wisdom that is to be extracted from the experience of a major war with all its wide and varied phases of the catastrophe War brings in its wake many new problems and many long standing problems assume a new and greatly enhanced importance under war-time conditions This is particularly true of medical problems Under the stress of war, the pace of research and development is considerably accelerated, victory and defeat depend not only on the strategy, tactics, weapons and vehicles employed, but also on the conservation of manpower from sickness and wounds, and on the maintenance of the morale of the fighting forces To these the medical services contribute much

This, the first volume describes in detail how India managed to expand her medical services to more than ten times their original strength At the outbreak of war the medical services of the Army in India were in no way organised to cope with the expansion necessary for a major war In the early years no crystallised plan existed which would enable the medical services to meet their commitments and medical planning was a piece-meal affair dealing by improvisation with new situations as these arose It was not that administrative medical officers had not given thought to this subject but it needed the occupation of its neighbour Burma by the Japanese to focus sufficient attention on medical problems in India

By October 1945, 1,163 medical units had been raised and 1,97,539 hospital beds equipped in India About five million casualties were treated in these hospitals The supply of medical stores and equipment in sufficient quantities constituted a tremendous task The medical store organisation originally under the DGIMS was ultimately taken over by the DMS

The history of this expansion was one of continuous struggle against the handicaps imposed by shortages of medical manpower, equipment and stores Added to these was the universal complaint of lack of adequate authority vested in the Medical Directorate for quick decisions owing to its subordinate status But in spite of all,

the medical services as a whole emerged successful in the end, after passing through various situations almost nearing breakdown, and were able to render to the fighting soldier as efficient a service as was possible in the circumstances.

World War II was unique not only in its global aspect, enveloping varied terrains in different countries and climates, but also in its range of the application of science to the men and equipment employed. The lessons to be learnt from a conflict of this magnitude are many. Having learnt them it would be possible to be prepared for the next war if wars did not change in their character and conduct. Unfortunately no two wars are fought on similar lines. Science advances so rapidly that it is impossible to predict the nature of the next conflict and to say whether all the lessons learnt from an earlier war can be a beacon for the next.

The basic pattern of war, however, appears to remain unaltered, and many situations tend to recur. The factual account contained in the various volumes of this medical history should, therefore, be of interest to the medical services of the armed forces in particular, and to the medical profession in general. It may also give an insight into the social function of medicine to the lay reader. It is apparent that a very high degree of efficiency was achieved by the medical services particularly in the field of preventive medicine, in the treatment and evacuation of casualties, in the maintenance of the morale of the fighting forces, and in research into new medical problems. The control of malaria in the eastern theatre of war was an achievement of which the medical services can well be proud ; in fact this campaign would have been impossible but for the very important part played by the medical services. The use of suppressive mepacrine, of the sulpha group of drugs and of penicillin was an important factor in reducing to a large extent the morbidity and mortality in the fighting forces.

Medical science progresses without pause and what was achieved during World War II must surely soon become outmoded. It is, therefore, imperative that the medical profession, basing their knowledge on the past, should keep a vigilant watch on scientific developments and continue their efforts to maintain the highest degree of efficiency. It will be seen that the success achieved during the war depended to a large extent on a vigilant outlook, a flexibility of plans and improvisation. Any delay in action and any conservatism were fraught with danger. A careful study of this medical history of the war by every administrative medical officer is, therefore, most desirable.

During February 1941, DMS 5(a), a sub-section under the DDH & P, Medical Directorate, GHQ, India, was made responsible for the collection of material of historical interest ; and instructions were issued to medical units to maintain their war

diaries suitably and to preserve all letters of policy as were issued from time to time. No further action was taken until an executive committee was formed in 1944, consisting of the DGIMS, the DMS, the PMO, RIN and the PMO, IAF. This committee was further strengthened by the inclusion of the Director of the Combined Inter-Services Historical Section. In July 1945, Lieut-Colonel J G Thomson, IMS, was appointed as Chief Collator and Editor. He prepared a plan for the medical history and an administrative instruction was issued in 1946. Among other things it was stated in the instruction that India's contribution would take the form of several separate volumes of the main Empire history, and originally it was intended that in so far as the clinical sections of the history were concerned the contributions would be prepared in the United Kingdom while the Indian material would be used to amplify these where necessary. On certain subjects, however, the main contributions were to come from India. By May 1946, the staff was collected and three officers joined the section. The Chief Collator and Editor toured the various commands to collect material and also visited various theatres of war in Burma, Malaya and the Far East.

Till the end of 1946, the section continued to be under the control of the Medical Directorate when it was transferred to the Combined Inter-Services Historical Section. The responsibility, for the policy, direction and general supervision in medical matters of the scheme of medical history was, however, retained by the DMS, and later by the DGAFMS. The Medical Section then became a sub section of the Combined Inter-Services Historical Section and on 15 August 1947, was placed under the control of the Supreme Commander, and later under that of the Joint Defence Council. In March 1948, the Joint Defence Council decided that this section would work both for India and Pakistan, directly under the administrative control of the Ministry of Defence, Government of India. Lieut-Colonel B L Rana, AMC, succeeded Lieut-Colonel J G Thomson as Chief Collator and Editor on 1 January 1948.

From its inception until December 1947, the main activity of the section had been that of collecting, sorting and indexing notes, papers and documents and collating them into narratives in bits and pieces. It could not be otherwise. It was obvious from the very beginning that reorganisation and expansion of the staff were necessary for the preparation of a detailed history of the part played by the armed forces of undivided India during the war. The Joint Defence Council sanctioned an establishment consisting of one editor, and five narrators.

Although it was repeatedly emphasised that the value of the official medical history would depend to a large extent on its being prepared and collated while the war was still in progress, yet it will be seen that the compilation was started at a very late stage. The



construction of these volumes, therefore, is mainly based on the available war diaries, files and other documents. Some of the war diaries were incomplete and illegible. Not a few of them were untraceable. The task of collating material became all the more difficult as a large number of files and documents were destroyed in 1947. The gaps in the narrative could be filled only by officers who had the personal knowledge of the events. Most of such officers, however, were demobilised or retired. The narratives, therefore, in places necessarily lack continuity.

For the preparation of the volumes of the medical history it has been constantly necessary to draw upon the knowledge and experience of many administrative officers, consultants, advisers and specialists who served in India during the war. Their assistance, invariably readily offered, has been of considerable advantage, indeed without their help it would have been impossible to complete this history.

Exchange of information between the American, the British and Commonwealth historians also has been of great help. The Indian medical history is inevitably linked with Commonwealth histories. Medical problems and progress are essentially the same the world over. A conference of Commonwealth medical historians was held in London in January 1946, to explore the possibilities of collaboration. The conference recommended the formation of a permanent Official Medical Historians Liaison Committee to act as a central agency for the interchange of preliminary narratives and other information between the medical historians, and to provide facilities for them to meet from time to time in order to review progress, to consult together on technical questions and to consider solutions of such problems as relate to the correlation of data, avoidance of overlap, balance as between one medical history and another and methods of presentation. The Liaison Committee meetings were attended by the medical historians (or their representatives) of America, Australia, Canada, India, New Zealand, Pakistan, South Africa and the United Kingdom. The Committee held meetings in Ottawa (1947), Oxford (1948), Canberra (1949) and New Delhi (1952). These meetings proved of immense value.

The Advisory Committee in India was well established by the end of 1948 and met at frequent intervals at Simla and Delhi to guide the preparation of the history. The membership of the committee underwent considerable change due to the exigencies of the service. To all those who have served, including the past chairman, Lieut.-General K. S. Master, I owe a debt of gratitude for their valuable services ungrudgingly rendered. I am also grateful to the many consultants and senior administrative officers of the IMS and the RAMC and other collaborators for their suggestions, contributions and reviews of the various volumes. In particular I must express my thanks to Dr. Bisheshwar Prasad, the Director of the

Combined Inter-Services Historical Section, under whose administrative control and over-all guidance this history has been compiled

Finally my thanks are due to the editor and members of the staff of the Medical History Section to whose ability and devotion to duty I largely attribute the successful completion of this history

Lieut -General,  
*Chairman, Medical History Advisory Committee*

of the Indian Armed Forces as a whole. In order to assist the reader to appreciate fully the problems which the formation of the Indian Army Medical Corps and the evolution of the nursing services during the war created, a retrospect of the medical services in India has been included in the appendices.

Voluntary assistance undoubtedly played an outstanding part in providing relief to the troops, an attempt was, therefore, made to collect authentic accounts of various organisations which provided aid to the Indian sick and wounded and the prisoners of war. It was originally planned to publish a separate volume describing their activities, but it was not possible to collect adequate information concerning all of them. Accounts of the more important voluntary organisations have, however, been embodied in the appendices. The inclusion of these accounts in the appendices does not mean that they were of minor importance. It may also be added that innumerable persons, singly and in groups, including a large number of ladies, made gifts, entertained convalescents and provided valuable help in a wide variety of ways to the sick and wounded soldiers, sailors and airmen.

Other administrative and organisational problems such as hygiene, malaria, nutrition, and specialist services are discussed in the volumes dealing with these subjects.

The subject matter of the present volume is based almost entirely on the documents maintained in the Combined Inter-Services Historical Section, Medical Library, to which frequent references are made in the footnotes. Some of the chapters and appendices have been prepared by individual experts who are acknowledged in the list of contributors. These chapters, however, have been amplified or, in some cases, abridged in view of the restriction of space. It is regretted that it was not possible in every case to obtain the requisite permission from each contributor whose contribution has been so modified.

Gratitude is also expressed to Professor F. A. E. Crew, FRS who very kindly gave active help in preparing the chapters for the press. Mr. Lakshman Saroop and Mr. Amar Nath Sharma gave valuable assistance in the preparation of this volume. Acknowledgement is also made to Sardar Khazan Singh and Mrs. Ruth Brockbank who were associated with the work concerning this volume in the early stages.

B.L.R.

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# Abbreviations

AAG(M)	.. Assistant Adjutant General (Medical).
AATO	.. Army Air Transport Organisation.
ADC	.. Army Dental Corps.
ADDS	. Assistant Director of Dental Services.
ADGIMS	.. Assistant Director General Indian Medical Service.
ADH	.. Assistant Director of Hygiene.
ADH(AM)	.. Assistant Director of Hygiene (Anti-Malaria).
ADH & P	.. Assistant Director of Hygiene and Pathology.
ADM	.. Assistant Director of Malariology.
ADMS	.. Assistant Director of Medical Services.
ADMS(P)	. Assistant Director of Medical Services (Personnel).
ADN	.. Assistant Director of Nutrition.
ADOS	. Assistant Director of Ordnance Services.
ADP	.. Assistant Director of Pathology.
ADS	Advanced Dressing Station.
AFO(I)	. Air Force Order (India).
AG	.. Adjutant General.
AI(I)	.. Army Instruction (India).
AINSR	.. Army in India Nursing Service Reserve.
AIRG(M)	.. Army in India Reserve of Officers (Medical).
ALFSEA	Allied Land Forces South East Asia.
AMD	.. Army Medical Department.
AMO	.. Administrative Medical Officer.
AMS(I)	.. Army Medical Stores (India).
AMTC	.. Army Medical Training Centre.
ANS(I)	.. Auxiliary Nursing Service (India).
AOC-in-C	. Air Officer Commanding-in-Chief.
APMO	. Assistant Principal Medical Officer.
ARO	. Assistant Recruiting Officer.
ARP	.. Air Raid Precautions.
ATC	.. Air Transport Command.
ATRO	.. Assistant Technical Recruiting Officer.
BC	.. British Cadre
BGH	.. British General Hospital.
BMA	.. British Medical Association.
BMH	.. British Military Hospital.
BMS	. Base Medical Stores.
BOR	. British Other Rank.
CCS	.. Casualty Clearing Station.
CGO	.. Civilian Gazetted Officer.
CIMH	.. Combined Indian Military Hospital.
CIMS	. Chief Inspector of Medical Stores.
C-in-C	. Commander-in-Chief.
CMH	.. Combined Military Hospital.
CMP	. Civilian Medical Practitioner.
CPM	. Chief Principal Matron.
CPO	Central Provision Office.

## ABBREVIATIONS—*Contd*

DAAG	Deputy Assistant Adjutant General
DAAG(CIV)	Deputy Assistant Adjutant General (Civilian)
DADH	Deputy Assistant Director of Hygiene
DADGIMS	Deputy Assistant Director General Indian Medical Service
DADM	Deputy Assistant Director of Malariology
DADMS	Deputy Assistant Director of Medical Services
DADOS	Deputy Assistant Director of Ordnance Services
DADP	Deputy Assistant Director of Pathology
DDDS	Deputy Director of Dental Services
DDE & S	Deputy Director of Equipment and Stores
DDGHS	Deputy Director General Health Services
DDGIMS	Deputy Director General Indian Medical Service
DDH & P	Deputy Director of Hygiene and Pathology
DDMOW	Deputy Director of Medical Organisation for War
DDMS	Deputy Director of Medical Services
DGAMS	Director General Army Medical Service
DGAFMS	Director General Armed Forces Medical Services
DGIMS	Director General Indian Medical Service
DGISD	Director General Indian Stores Department
DMS	Director of Medical Services
DMT	Director of Military Training
D of R	Director of Recruitment
DPMO	Deputy Principal Medical Officer
EC	Emergency Commission
ENT	Ear, Nose and Throat
FAU	Friends Ambulance Unit
FOC	Flag Officer Commanding
GHQ	General Headquarters
GOC-in-C	General Officer Commanding-in-Chief
GS	General Staff
GSO	General Staff Officer
HMIS	His Majesty's Indian Ship
IACC	Indian Army Corps of Clerks
IAF	Indian Air Force
IADC	Indian Army Dental Corps
IAMC	Indian Army Medical Corps
IAMC (SMS)	Indian Army Medical Corps (Special Medical Section)
IANs	Indian Army Nursing Service
IAO	India Army Order
IAOC	Indian Army Ordnance Corps
IAVC	Indian Army Veterinary Corps
IBGH	Indian Base General Hospital
IBGH(BT)	Indian Base General Hospital (British Troops)
IBGH(C)	Indian Base General Hospital (Combined)
IBGH(IT)	Indian Base General Hospital (Indian Troops)
IC	Indian Cadre

# ABBREVIATIONS—*Contd.*

ICRC	..	International Committee of Red Cross.
IEME	.	Indian Electrical and Mechanical Engineers.
IGH(BT)	..	Indian General Hospital (British Troops).
IGH(C)	..	Indian General Hospital (Combined).
IGH(IT)	..	Indian General Hospital (Indian Troops).
IHC	..	Indian Hospital Corps.
IMD	..	Indian Medical Department.
IMH	..	Indian Military Hospital.
IMNS	..	Indian Military Nursing Service.
IMNS(T)	..	Indian Military Nursing Service (Temporary).
IMS	..	Indian Medical Service.
IOR	.	Indian Other Rank.
IRCC	..	International Red Cross Committee.
IRRO	.	Indian Reserve of Retired Officers.
ISF	..	Indian State Forces.
ISS	.	Indian Staging Section.
ITA	..	Indian Tea Association.
IVAS	..	Indian Voluntary Aid Service.
LCI	..	Landing Craft Infantry.
LCI(D)	..	Landing Craft Infantry (Depot Ship).
LCM	..	Landing Craft Minor.
LCT	.	Landing Craft Tank.
L of C		Lines of Communication.
MAC	.	Motor Ambulance Convoy.
MDS	..	Main Dressing Station.
MFTU	..	Malaria Forward Treatment Unit.
MGO	.	Master General of Ordnance.
MME	.	Medical Mobilisation Equipment.
Mob. Regs.	.	Mobilisation Regulations.
MT	.	Mechanical Transport.
NC(E)	..	Non Combatant (Enrolled).
NCO	.	Non Commissioned Officer.
OS	.	Officer Supervisor.
P & A Regs.	.	Pay and Allowance Regulations.
PM	.	Principal Matron.
PMO	.	Principal Medical Officer.
POW	..	Prisoner of War.
PSO	.	Principal Staff Officer.
PVMS	..	Priced Vocabulary of Medical Stores.
QAIMNS	..	Queen Alexandra's Imperial Military Nursing Service.
QMG	..	Quarter Master General.
QAMNS(I)	.	Queen Alexandra's Military Nursing Service (India)
RAF	..	Royal Air Force.
RAI	..	Regulations for the Army in India.
RAMC	..	Royal Army Medical Corps.
RAP	.	Regimental Aid Post.
RAPWI	..	Recovered Allied Prisoners of War and Internees.

# ABBREVIATIONS—*Contd*

RBMS	Reserve Base Medical Stores
Rectg Regs	Recruiting Regulations
Rel Regs	Release Regulations Indian Army and Women's Services in India
RIAF	Royal Indian Air Force
RIASC	Royal Indian Army Service Corps
RIM	Royal Indian Marine
RIN	Royal Indian Navy
RINFO	Royal Indian Navy Fleet Orders
RIN(I)	Royal Indian Navy Instructions
RINVR	Royal Indian Naval Volunteer Reserve
RMO	Recruiting Medical Officer
RMS(I)	Regulations for the Medical Services of the Army in India
RN	Royal Navy
RNVR	Royal Naval Volunteer Reserve
RO	Recruiting Officer
RRC	Recruits Reception Centre or Camp
RTC	Recruits Training Centre
SACSEA	Supreme Allied Commander South East Asia
SBA	Sick Berth Assistant
SC	Staff Captain
SC(M)	Staff Captain (Medical)
SCRG	Services Convalescent and Rehabilitation Centre
SDHO	Sub Divisional Health Officer
SEAC	South East Asia Command
SEMO	Senior Executive Medical Officer
SM	Staff Matron
SRMO	Senior Recruiting Medical Officer
TANS	Territorial Army Nursing Service
TINS	Temporary Indian Nursing Service
TRO	Technical Recruiting Officer
USAAF	United States Army Air Force
VAD	Voluntary Aid Detachment
VCO	Viceroy's Commissioned Officer
WAC(I)	Women Auxiliary Corps (India)
WET	War Equipment Table
WO	Warrant Officer
WRINS	Women's Royal Indian Naval Service

# Guide to Footnotes

Footnotes have been numbered serially on each page. They can be classified in three categories, *viz.*, (i) explanatory notes, (ii) cross references, and (iii) the sources from which the material has been collated.

To assist the reader who may wish to consult the original sources, the explanation of abbreviations, in respect of the type of documents used in footnotes, is given below .—

H	.. Combined Inter-Services Historical Section Library Document.
H(M)	Combined Inter-Services Historical Section Medical Library Document.

The H(M) documents are preceded by a symbol or symbols and a number. The meaning of these symbols is as follows :—

<i>Symbol</i>	<i>Subject of the file or document</i>
A	Administration, organisation and liaison.
B	Medical Services in relation to the fighting soldier.
C	Medical Services in relation to the sick and wounded.
F	Files relating to the period after June 1941.
FMisc.	Miscellaneous Files.
FZ	Files relating to the period before June 1941.
H	History.
K	Reports of conferences.
L	Library of publications.
POW	Documents relating to POW.
P	Photographs and illustrations.
QR	Quarterly reports.

OFFICIAL MEDICAL HISTORIAN'S LIAISON COMMITTEE OF THE  
COMMONWEALTH COUNTRIES AND THE U S A  
FOURTH MEETING DE III 3RD MARCH TO 17TH MARCH 1962



Front row

Back row

Col M Sarwar (Pakistan) Maj Gen A N Sharma (India) Prof F A F Crew (U.K.) Lt Gen D R Thapar (India)  
Mr W Franklin Mellor (U.K.) Dr Allan S Walker (Australia), Mr Fraser Wilkins (U.S.A.), Dr C G Pandit (India)  
Mr I A K Pillai (India) Lt Col N N Madan (India), Capt John H Painter (U.S.A.) Lt Col T C Puri (India)  
Brig B Chaudhuri (India) Maj Gen D N Chakravarty (India) Dr Bisheshwar Prasad (India), Surg Capt Asa Singh (India),  
Col B M Rao (India) Gp Capt P P Chivduthery (India), Lt Col B L Raina (India)



# Guide to Footnotes

Footnotes have been numbered serially on each page. They can be classified in three categories, *viz.*, (i) explanatory notes, (ii) cross references, and (iii) the sources from which the material has been collated.

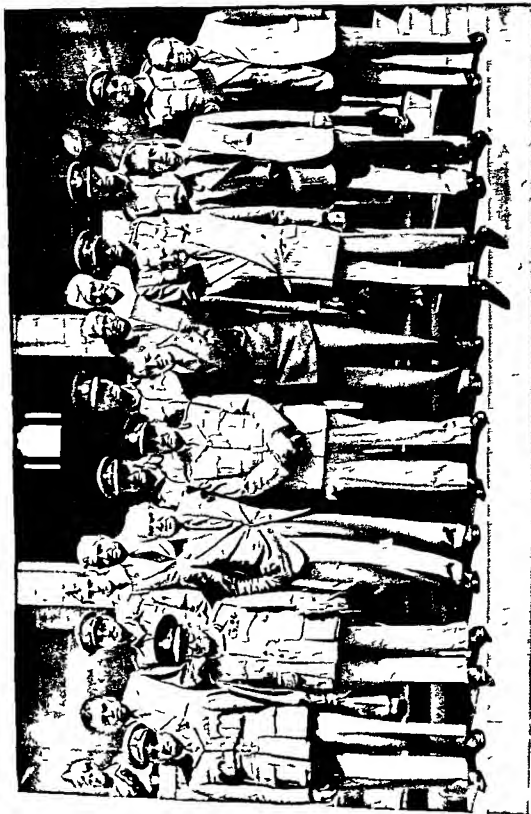
To assist the reader who may wish to consult the original sources, the explanation of abbreviations, in respect of the type of documents used in footnotes, is given below .—

H	Combined Inter-Services Historical Section Library Document.
H(M)	Combined Inter-Services Historical Section Medical Library Document.

The H(M) documents are preceded by a symbol or symbols and a number. The meaning of these symbols is as follows :—

<i>Symbol</i>	<i>Subject of the file or document</i>
A	Administration, organisation and liaison.
B	Medical Services in relation to the fighting soldier.
C	Medical Services in relation to the sick and wounded.
F	Files relating to the period after June 1941.
F Misc.	Miscellaneous Files.
FZ	Files relating to the period before June 1941.
H	History.
K	Reports of conferences.
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OFFICIAL MEDICAL HISTORIANS' LIAISON COMMITTEE OF THE  
COMMONWEALTH COUNTRIES AND THE U.S.A.  
FOURTH MEETING DELHI 3RD MARCH TO 15TH MARCH 1962



*Front row*

Col M Sarwar (Pakistan) Maj Gen A N Sharma (India), Prof T A L Crew (U.K.) Lt Gen D R Thapar (India)  
Mr W Franklin Mellor (U.K.) Dr Allan S Walker (Australia), Mr Fraser Wilkins (U.S.A.) Dr C G Pandit (India)  
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Col B M Rao (India) Gp Capt P P Chaudhery (India) Lt Col B I Raina (India)

*Back row*

Directorate included the DMS., a deputy director of medical services (DDMS) who was also the director of hospital organisation, a chief lady superintendent, a director of medical organisation for war, a director of hygiene and pathology, two assistant directors of medical services (ADsMS), and four deputy assistant directors of medical services (DADsMS).<sup>4</sup>

No substantial change in the staff appears to have been made till 1 April 1937, when the following staff was authorised : DMS, DDMS, a deputy director of medical organisation for war (DDMOW), a deputy director of hygiene and pathology (DDH & P), a deputy director of dental services (DDDS), an assistant director of hygiene and pathology (ADH & P), a chief principal matron (CPM), two DADsMS, and an officer supervisor (OS). This continued to be the peace time establishment of the Medical Directorate.<sup>5</sup>

### *The Director of Medical Services*

The war not only increased the extent of peace time responsibilities of medical services but also added numerous other duties. A large number of recruits for the armed forces had to be examined. Field medical units and personnel had to be equipped, trained, and mobilised. A constant supply of trained personnel as reinforcements had to be maintained. An organisation capable of supplying the medical needs of the Army in India, the overseas forces based on India and the needs of the civil population in reoccupied countries until such time as civil administration could be re-established had to be set up. The reception, distribution and treatment in India of a large number of casualties from the forces operating in overland or overseas theatres necessitated the provision of adequate transportation facilities and base hospitals. The subsequent disposal of British casualties to their depots in the United Kingdom required air or sea transport. The problems of hygiene, malaria, nutrition and others inherent in a rapid expansion of the armed forces, especially when operating in Assam, Burma and the South East Asia, had to be solved. A large number of prisoners of war, especially Italian, required special medical provision. Finally, the recovery of allied prisoners of war and internees required special arrangements. These commitments threw an immense amount of work on the administrative organisation of the medical services in India. The task became all the more difficult because they were unprepared for an emergency of such a magnitude. India had not planned for major world war, frontier defence had been her main pre-occupation.

The dependence of the medical services on different agencies further complicated the administrative problems and planning. The DMS was dependent on the AG for personnel, on the Quartermaster General (QMG) for transport, on the Master General of Ordnance (MGO) for tentage and non-medical equipment and on the Director

<sup>4</sup>AI(I)33/1921

<sup>5</sup>AI(I)62/1937.

General, Indian Medical Service (DGIMS),<sup>6</sup> for medical officers, nurses, and medical stores. The Director General, Army Medical Service (DGAMS) in the United Kingdom, controlled all departmental matters relating to the Royal Army Medical Corps (RAMC), the Army Dental Corps (ADC) and the Queen Alexandra's Imperial Military Nursing Service (QAIMNS).

Much time is required for the equipping of medical units and further time for their assembly and training. The medical services, obviously, must have ample warning of the creation of new formations and their movements. Unless the DMS could personally approach the heads of each of the various departments concerned, he was likely to be left hopelessly behind in the race for supplies and requirements. The DMS insisted upon his right to sit always with the Principal Staff Officers (PSOs) in such discussions 'and not only when some one thought that it might affect the medical services'. It was also felt necessary that the Commander-in-Chief (C-in-C) should set aside a definite time to see the DMS two or three times a week.

Although the DMS, as the responsible technical adviser to the C-in-C, had the right of direct access to him on professional matters, yet in practice it appears that the AG insisted that permission to do so should be obtained through him. It seems that in the early years of the war, the chances of the DMS seeing the C-in-C were very slender, and considerable delays in settling urgent matters occurred. In July 1940, the Medical Directorate was, therefore, detached from the AG's Branch and the DMS was given the status of a PSO. This elevation in the status of the DMS, however, was short lived, for early in 1941 the *status quo* was resumed and the Medical Directorate again came under the AG in India. This arrangement was not altogether satisfactory. The DMS could, however, issue orders on behalf of the AG to the General Officers Commanding-in-Chief (GOC-in-C), Commands and Districts, and decide all such technical questions pertaining to the medical services as were submitted to the GHQ.

<sup>6</sup> The DGIMS was in a peculiar position. He was the medical adviser to the Government of India and its various departments on a large number of policy matters. He was the head of the Indian Medical Service (IMS) and the Indian Medical Department (IMD) and was responsible for their recruitment, pay, promotion, etc., and all general questions relating to them. He was also responsible for recruiting, terms of service and records of nurses in the Indian Army. He was the official adviser of the War Department on all questions of supply of military medical stores and equipment and had direct control of the Medical Stores Department. In conformity with his responsibilities all references concerning subjects which were his primary concern were passed to him direct by sections of the War Department as well as by the branches of General Headquarters (GHQ). On the civil side the DGIMS controlled and administered the Medical Research Department and several institutions of national importance and represented the Government of India on several organisations private and semi official such as the Medical Council of India and the Indian Red Cross.

The following officers held the appointments of the DGIMS from 1937-1947

	From	To
Lieut. General Sir Ernest Bradfield, KCIE, OBE, KHS	14 February 1937	29 September 1939
Lieut. General Sir Gordon Grey Jolly, KCIE, KHP	30 September 1939	3 October 1941
Lieut. General Sir Bennet Hance, KCIE, OBE, KHS	4 October 1941	11 March 1946
Lieut. General Sir Robert Hay, KCIE, KHP	12 March 1946	14 August 1947

For details of the expansion of the office of the DGIMS see Appendix IX

The DMS and his staff officers had exceedingly heavy responsibilities. The success with which each of them in turn carried out his duties is worthy of the highest praise. Brief reference may be made to some of the important activities during the term of each of the DsMS. Major-General G.G. Tabuteau, DSO, KHS, assumed the appointment of DMS in 1937. In March 1940, he died in harness. He was succeeded on 12 March 1940, by Major-General William Haywood Hamilton, CB, CIE, CBE, DSO, FRCS, KHP, an officer with long service experience and outstanding administrative and professional ability. His field experience especially during operations in the North-West Frontier 1936-37, is reflected in the scheme he adopted on a larger scale when he became DMS in India.<sup>7</sup> He found that medical planning to meet the requirements of a major war had hardly been started. The first thing he looked into was the supply of medical stores. By May 1941, the DMS undertook the whole function of provisioning of medical stores. One of his more notable achievements, was the obtaining of the status of a PSO for DMS in July 1940. Some of the important schemes carried out during his term of office were : the medical aspect of 1940 and 1941 expansion schemes, the recall of IMS officers in civil employment, the recruitment to the emergency branches of the IMS and IMD Indian Cadre (IC), the formation of the IMS (dental branch), the training field ambulance, the training field hygiene section, the anti-malaria unit, the light field hygiene section and the light field ambulance, and establishment of hospitals in Poona, Deolali, Bombay and Kirkee for the treatment of overseas casualties. He also initiated the scheme for the formation of a headquarters for the Indian Hospital Corps (IHC). He relinquished his office early in 1941 and was succeeded by Major-General Archibald Campbell Munro, CB, KHP, who remained in office till 31 May 1943.

The term of office of Maj.-Gen Munro was an eventful one during which the formation of the Indian Army Medical Corps, the Indian Army Dental Corps, the Army Medical Training Centre and the organisation to combat malaria was initiated and consultants were introduced in the Army. Some of the other schemes carried out or initiated by him were : the medical aspect of 1941 expansion scheme, the establishment of Headquarters Training and Depot Centres and the Administrative Headquarters of the IHC, the IHC Viceroy's-Commissioned Officers, (VCOs) and Non-Commissioned Officers, (NCOs) School, the Army School of Hygiene, Babina, the Medical Wing Tactical School, Poona, and the Field Ambulance Training Centre ; the reorganisation of field ambulances, the formation of hospital river steamers, independent ward coaches, the field ambulances and the field hygiene section (light division), and ophthalmological, surgical, ear, nose and throat (ENT), mobile surgical, base transfusion, dental, and dental mechanic units, the replacement of medical officers employed as registrars and quartermasters

<sup>7</sup> See also final despatch of the G-in-C, Operation on the North-West Frontier 1936-37 Gazette of India, Extraordinary dated 14 June 1938, Notification No 613, para 20

by non-medical officers, and the recruitment of IMD British Cadre (BC) to the IMS Emergency Commission (EC), and of civilian medical practitioners (CMP) (graduates and licentiates), specialists, technicians (pharmacists, laboratory assistants and radiographers) and medical officers for service in Indian limits

On 1 June Lieut-General Sir Gordon Wilson, KCSI, CB, OBE, MC, KHS, succeeded General Munro. He assumed the office of the DMS at a very difficult period, when the situation in the east was dismal. He continued to direct the medical services till victory had been won. One of the major problems he had to solve was the evacuation and distribution of casualties received from Burma. A GHQ casualties evacuation organisation was established by him to deal with this problem. Some of the other important schemes carried out during his term of office were the military medical arrangements for the Bengal famine relief, the Medical Directorate research organisation, the Command Malaria Training School (later converted into training teams), the malaria field laboratory, the mass radiography centre Kunraghat, the establishment of hospital town at Jalahali, the formation of malaria forward treatment, maxillofacial, blood transfusion and beach medical units, the arrangements in connection with the recovered allied prisoners of war and internees (RAPWI) and rehabilitation of disabled ex-servicemen.

Lieut-General Wilson was succeeded on 25 March 1946, by Lieut-General Sir Treffry Owen Thompson, KCSI, CB, CBE, MA, DM, KHP, an officer with great drive and an extraordinary talent for improvisation and with recent experience of war both in the eastern and western theatres. He had already held the appointments of DDMS in Iraq, Burma, Central Command and Eastern Army, Medical Adviser to Supreme Allied Commander in South-East-Asia (SACSEA) and DMS Eleventh Army Group, Allied Land Forces South East Asia (ALFSEA). The numerous problems involved during the closing phases of a major war including demobilisation, rehabilitation and the formation of central returned medical stores depot and of services convalescent rehabilitation centres had to be dealt with by him. He held the office of the DMS till 1947 when the armed forces of India were divided between India and Pakistan.

### *The Expansion of the Medical Directorate*

The peace time establishment of the Medical Directorate consisted of 10 officers, 48 clerks and 28 record sorters, duffries and peons. The directorate in September 1939 included the following sections —<sup>8</sup>

<i>Section</i>	<i>Subjects dealt with</i>	<i>Officers employed</i>
DMS	Over all administration of the medical services as a whole, hospital administration, nursing services and dental services	DMS DDMS GPM, DDMS

<i>Section</i>	<i>Subjects dealt with</i>	<i>Officers employed</i>
DMS 1	Personnel IMS, IMD, RAMC.	Two DADsMS
DMS 2	Medical stores and equipment mobilisation and medical organisation for war.	DDMOW
DMS 3 and 5	Hygiene, pathology and statistics	DDH & P ADH & P
DMS 6	Office establishment and medical budget	OS

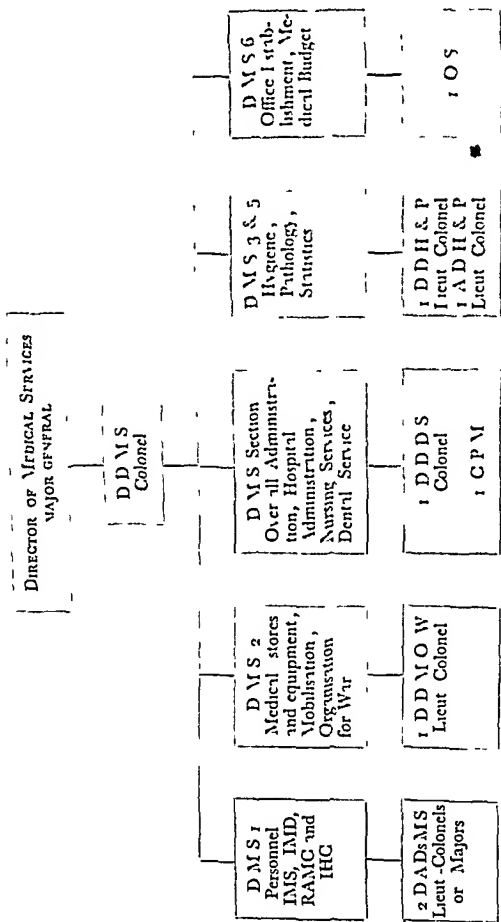
The rapidly increasing responsibilities in war could not be adequately discharged by such a limited staff. The existing staff was, therefore, expanded and additional sections were created. By August 1945, the establishment of the directorate had increased to 100 officers, 396 clerks and 159 peons.

The mobilisation scheme provided for no comprehensive expansion of the directorate during the war except that it visualised the necessity of forming a sub-section of DMS 1. But immediately on the outbreak of war a DADMS was attached to DMS 2 (mobilisation sub-section) and the addition of a few clerks was also authorised. In August 1940, an officer was transferred from the AG's Branch to the Medical Directorate to deal with mobilisation problems and two appointments of OSs, one for DMS 2 and the other for DMS 5, were sanctioned. In April 1941, DMS Section was abolished and its functions were transferred to other sections. Hospital administration was transferred to DMS 5 and nursing services to DMS 1. For the dental services a new section, designated DMS 3, was formed and the original DMS 3 and 5 became DMS 5. The DDMS could then pay adequate attention to the important matters of administration and the mobilisation schemes. The DDMS was granted the acting rank of brigadier on 14 November 1941.<sup>9</sup> Up to the end of 1942 the DMS had only one deputy. But it was soon realised that he could not carry alone the whole burden imposed by the expansion in the directorate and the ever-increasing administrative and operational problems. An additional DDMS with the rank of brigadier was, therefore, sanctioned in January 1943. The two DDsMS were designated DDMS (Operations) and DDMS (Administration) respectively. DDMS(O) dealt with operational matters and controlled DMS 4, 6 and 8. The remaining sections were controlled by DDMS(A). Operational matters arising in any administrative section were referred to DDMS(O) through DDMS(A) and *vice versa* <sup>10</sup>

*DMS 1—Personnel Section.* The supply of medical personnel to meet the needs of the Army was a source of anxiety even at the beginning of the war, but with the advent of the 1940 Expansion Scheme and the 1941 Replacements the task became exceedingly difficult. Every effort had to be made to procure the required number of medical personnel for a large number of medical units

<sup>9</sup> IAO 600/1942

<sup>10</sup> A/3/27/H(M).



Organisation of the Medical Directorate September 1939



then being raised and for the fast expanding garrison hospitals in India. This involved considerable increase in work in DMS 1.

In August 1940, work in connection with the IHC had been transferred to the Medical Directorate from the AG's Branch. An appointment of a staff captain (SC) in DMS 1, under a DADMS for this work was also created at that time. With the increase in the strength of the IHC and consequent increase in the volume of work, it was not possible for the DADMS to supervise the work effectively. The appointment of the SC was, therefore, raised to that of a deputy assistant adjutant general (DAAG) on 4 November 1941.<sup>11</sup> The appointments of ADMS (Personnel) and an OS were also sanctioned for DMS 1 in April 1941. This was followed by the creation of the appointment of an ADMS (Training) and a staff captain—the former to deal with questions relating to the training of medical personnel and the latter to handle questions concerning RAMC British other ranks (BORs) recruited in India from the Anglo-Indian community. The formation of the Indian Army Medical Corps<sup>12</sup> (IAMC) incorporating the IMS, IMD and IHC, in April 1943, led to the transfer of the corresponding work from the office of the DGIMS to the Medical Directorate. In consequence, there was a large increase of work in DMS 1. The section was, therefore, reorganised and the staff, both officer and clerical, was increased.

Towards the middle of 1943, the nursing section was separated from DMS 1 and formed into a new section designated DMS 9. By the end of 1944, the need for a separate record section in DMS 1 was acutely felt. The records hitherto were maintained by different sub-sections but the arrangement was not satisfactory. A new sub-section was accordingly formed under an OS.

*DMS 2—Medical Stores and Equipment* · Before the outbreak of war the stores section was under the direction of the DDMOW who was responsible for planning and all matters connected with mobilisation and readiness for war. But the steady increase in work led to its being split into two sections. DMS 2 was to deal solely with stores, while a new section (DMS 4) was created to handle all mobilisation matters. The procedure for the procurement of stores was that all indents were passed on by the units to DGIMS who issued the stores direct from military stocks maintained at the medical stores depots. DMS had no control over these stocks. The position was far from satisfactory, and in February 1941, the C-in-C ordered a committee of the PSOs to investigate the position. The main recommendation of this committee was "that the DMS should undertake the whole function of provisioning as understood in the MGO Branch with the exception that the DGIMS should continue to hold the stores".<sup>13</sup> The 'Provision Section' thus came into being in DMS 2 and was the first step towards the further reorganisation of that section.

<sup>11</sup> F/Z-26417/H(M)

<sup>12</sup> See page 29

<sup>13</sup> F misc /164/H(M)

Since mobilisation matters had been transferred to another newly-formed section, the designation of DDMOW was changed to deputy director of equipment and stores (DDE & S)

In November 1942, DMS 2 was reorganised. A substantial increase in the staff of the section was made and a Hollerith machine was provided. DMS 2 at this stage was organised into three main groups—Provision, Issues and Co-ordination. The Provision group was responsible for the calculation of the total quantity of medical stores required for the initial equipment of all units of the Army in India and for their maintenance and reserve requirements. Orders for stores emanated from this group. The Issues group was responsible for the supply of stores to depots and units to meet their immediate needs and for the control and distribution of such items as were in short supply. The Co-ordination group was responsible for the collection and supply of all information to the Provision group relating to the strength and number of units to be catered for, and to the Issues group regarding the disposition of troops throughout the India Command to enable that group to arrange for the proper distribution of stocks. It also controlled the details of sets of equipment and was responsible for obtaining financial sanction for newly introduced items into the Priced Vocabulary of Medical Stores (PVMS), for the supply of all statistical information to the Provision and Issues groups regarding stocks held, and for the control of establishments and accommodation required for the Army Medical Stores (India) (AMS(I)).

In October 1943, South East Asia Command (SEAC) came into being and the work of the stores section further increased owing to the added responsibility of meeting the needs of this command and its civil components. The staff of DMS 2 was eventually increased to 21 officers, 1 OS, 4 civilian gazetted officers (CGOs), 1 civil bank officer, 8 technical assistants, 6 warrant officers (WOs), 2 superintendents, 6 assistants-in-charge, 89 clerks and 17 operators (Hollerith). The section was again reorganised into seven sub-sections *viz* administrative, planning, provision, standardisation, distribution, ordnance and statistical.<sup>14</sup> In the beginning considerable difficulty was experienced in getting financial sanction for medical stores and equipment. This difficulty was eventually solved by attaching a representative of the Finance Department to the Medical Directorate.

*DMS 3—Dental Services.* A section DMS 3 dealing with Dental Services was formed in April 1941. With the formation of the Indian Army Dental Corps (IADC) in April 1943, and the steady increase in work, owing to the increasing strength of officers and other ranks, the staff of the section had to be increased by a staff captain in early 1944, and an assistant director of dental services (ADDS) in December 1944.<sup>15</sup>

<sup>14</sup> See also pages 341-342

<sup>15</sup> See also page 58

*DMS 4*—The section DMS 4 came into being towards the middle of 1941 when the work in connection with mobilisation and organisation for war was separated from DMS 2. The work in this section, however, increased rapidly, necessitating reorganisation in September 1942, which involved the addition of an assistant adjutant general (AAG) (Medical). The section thenceforth acted as a co-ordinating section for the Medical Directorate in place of AG(C-2) and AG(C-3) sections of the AG's Branch. Questions of war planning and expansion, raising and mobilisation of units, and the despatch of units continued to be co-ordinated by AG(C-1).

In February 1944, a further reorganisation of DMS 4 and DMS 8 which dealt with hospital administration became necessary. It resulted in the amalgamation of these two sections and the formation of section DMS (Operations), which was later designated Med. Ops.<sup>16</sup> The newly-formed section was responsible for medical operations, planning and movements. The last reorganisation of this section resulted in the abolition of the section DMS 6 and the formation of Medical Organisation Section.

*DMS 5—Hygiene, Pathology and Statistics*<sup>17</sup>: The head of the section was DDH & P, who was assisted by an ADH & P. The appointment of DDH & P in the beginning carried the rank of colonel or lieutenant-colonel. There was no provision for the grant of acting rank of colonel to a substantive lieutenant-colonel holding the appointment. As the appointment was of a highly technical nature and the incumbent was required to give final opinion and rulings on all questions relating to the health of the Army in India to senior officers in other departments of the service, the acting rank of colonel was sanctioned for it on 2 September 1940.<sup>18</sup> Later, the local rank of brigadier was sanctioned from 21 January 1944,<sup>19</sup> and the acting rank of brigadier from 17 April 1945.<sup>20</sup> Early in 1941, the functions of the ADH & P were divided between the assistant director of hygiene (ADH) and the assistant director of pathology (ADP). In the meantime malaria had become a serious problem and its control from the centre became essential. Accordingly, the appointment of ADH anti-malaria (AM) was added to this section in November 1941. In March 1943, this appointment was designated as assistant director of malariology (ADM). A deputy assistant director of malariology (DADM) was also added to the staff of the section on 20 July 1943.<sup>21</sup> In the meantime the Director of the Malaria Institute of India had visited operational areas at the request of the military authorities. On 23 April 1942, he was appointed consultant malariologist at the GHQ. The rank of brigadier was authorised for him and this was later upgraded to major-general.<sup>22</sup>

<sup>16</sup> A/3/27/H(M)

<sup>17</sup> See also Volumes on *Medicine, Surgery and Pathology, Prevention of Diseases, Malaria Control and Nutrition and Statistics*

<sup>18</sup> F/Z-23488/H(M).

<sup>19</sup> F/2419/H(M)

<sup>20</sup> F/3606/19/H(M)

<sup>21</sup> F/2118/H(M).

<sup>22</sup> F/2132/H(M) See also Volume on *Prevention of Diseases, Malaria Control and Nutrition*

Early in 1943, an appointment of a DADMS (nutrition) to combat the danger of malnutrition was made, which was upgraded to assistant director of nutrition (ADN) on 14 October 1943<sup>23</sup> The Director, Nutrition Research Laboratories, Coonoor, was appointed honorary consultant in nutrition to the GHQ on 27 November 1943<sup>24</sup>

Towards the middle of 1944, a number of research officers were added to DMS 5 to carry out investigations in the fields of preventive and clinical medicine and of transfusion<sup>25</sup>

*DMS 6*—This section originally dealt with office establishment and the medical budget On the formation of the Chief Administrative Officer's office towards the end of 1942, the office establishment work was transferred to it together with the OS in charge of the work The section, however, continued to function as the co ordination section of the directorate under the AAG(M) until January 1945, when it was merged into the Medical Organisation Section

*DMS 7*<sup>26</sup>—Before World War II there was no special cadre of consultants and advisers The administrative medical officers were responsible for professional training and treatment in medical units The different branches of medicine had already become highly specialised By 1941, the Army in India had expanded to nearly half a million and this number was rapidly increasing All serious battle casualties were being sent to India from Persia and Iraq, and quite a large number of casualties were also arriving from the Middle East, Far East and Burma The sick rate amongst casualties evacuated from the Eastern Army was also considerable Several hospitals were opened to accommodate these casualties and to these specialists in various subjects were appointed These specialists were generally junior officers and required supervision and guidance As the war progressed, the necessity of appointing consultants became urgent On 11 May 1941, the terms and conditions<sup>27</sup> of service of consultants were sanctioned, and in 1942, the appointments of consultant physician<sup>28</sup> and surgeon<sup>29</sup> at the GHQ were authorised This was followed by the appointment of advisers and consultants in other subjects By 1944, ten consultants (surgeon, physician, psychiatrist, neurologist, ophthalmologist, anaesthetist, oto-rhino laryngologist, dermatologist, radiologist and venereologist)<sup>30</sup> and one adviser<sup>31</sup> in neuro-surgery were serving at GHQ In the beginning, the consultants in surgery, medicine, psychiatry, neurology and ophthalmology were granted the local rank of brigadier and the remaining consultants held the rank of colonel In April 1945, it was agreed that all<sup>32</sup>

<sup>23</sup> F/2270/H(M)

<sup>24</sup> F/2137/H (M)

<sup>25</sup> A/3/27/H (M)

<sup>6</sup> See also Volume on *Medicine Surgery and Pathology*

<sup>27</sup> F/Z 21017/H(M)

<sup>28</sup> F/2132/H(M)

<sup>29</sup> F/Z 26271/H(M)

<sup>30</sup> A/2/55/H(M)

<sup>31</sup> Adviser in neuro-surgery was also commanding the neuro-surgical centre

<sup>32</sup> F/3606/12/H(M)

consultants in the India Command should be granted the local rank of brigadier from the date of their appointment. With the creation of the above mentioned appointments at GHQ, DMS 7 section was created in April 1942.<sup>33</sup>

*DMS 8—Hospital Organisation :* Before July 1942, all questions relating to planning, organisation and administration of hospitals, operational and static units, were dealt with in DMS 5. The duties in connection with these matters had increased to such an extent since the outbreak of the war that they could no longer be dealt with efficiently in DMS 5, and, accordingly, a new section, DMS 8, was formed. This section was placed under the Inspector of Hospitals, assisted by one DADMS. The Inspector of Hospitals was initially required to assist in organising static hospitals. Forward planning for the raising of general and base hospitals and convalescent depots necessitated the preparation of detailed and meticulous appreciations, including the strength of armies on the borders of India and overseas commitments.<sup>34</sup> In February 1943, the designation of Inspector of Hospitals was changed to that of Inspector Medical Services with the rank of brigadier<sup>35</sup> and the scope of his duties was widened to include operational commitments, planning, appreciation, etc., and expansion, organisation and administration of garrison hospitals. DMS 8 was later merged into the Medical Organisation Section.

*DMS 9—Nursing Section<sup>36</sup> :* With the growth of the nursing services, especially the introduction of the Auxiliary Nursing Service (India) (ANS(I)), a separate section, DMS 9, was formed in July 1943. The CPM ranked as a brigadier from May 1944.<sup>37</sup> The increase in work in this section led to the appointment of a total of 8 officers by October 1945.

*DMS 10—Medical boards, medical attendance and medical war records* were originally dealt with by DMS 5. As that section was becoming too unwieldy, a new section designated DMS 10, was formed about November 1943. The increase in work on medical boards and the accumulation of medical war records necessitated an addition to the establishment of a CGO and the raising of the status of the OS to that of a DAAG (Civilian).

*DMS 12—*The section DMS 12 (later designated as DMS 3) with a skeleton staff was originally sanctioned in 1944, to deal with the writing of the medical history of the war. A Chief Collator and Editor was appointed in July 1945. The establishment of the section was slightly expanded in April 1946. In December 1946, it was amalgamated with the Combined Inter-Services Historical Section which was later reorganised as a joint section of India and Pakistan, and its establishment included one editor and five narrators, which was sanctioned with effect from 1 October 1948. The DMS in India and later the Director General, Armed Forces Medical Services

<sup>33</sup> A/3/29/H(M)

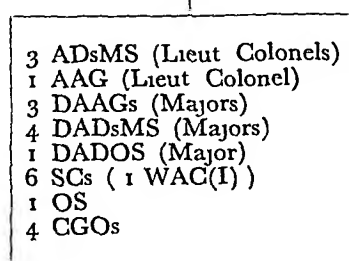
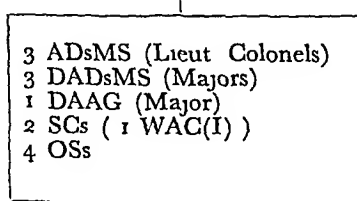
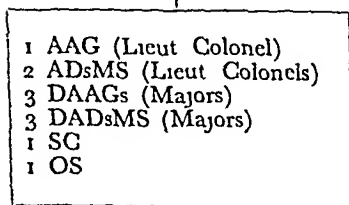
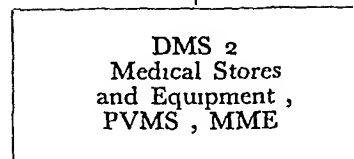
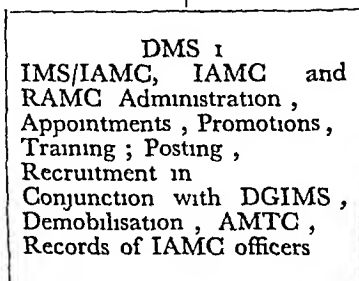
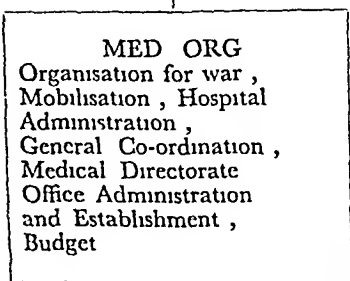
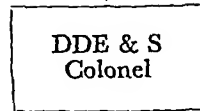
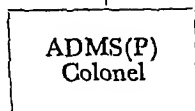
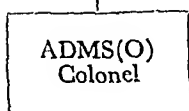
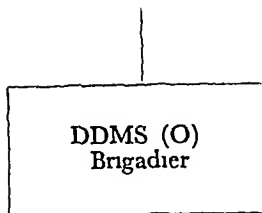
<sup>34</sup> I/2303/H(M)

<sup>35</sup> F/2132/H(M)

<sup>36</sup> See also page 79

<sup>37</sup> F/3603/34/H(M)





(DGAFMS), however, retained the responsibility for the policy, direction and general supervision in medical matters of the programme of work of the section<sup>38</sup>

#### COMMANDS, DISTRICTS AND STATIONS

At every Command Headquarters there was one DDMS who was the technical adviser of the GOC-in-C on all medical matters and on all questions affecting the health of the troops. He controlled and administered all medical establishments and personnel, distributed the medical personnel according to requirements and issued on behalf of the GOC in C, such orders as were necessary. Likewise at every District Headquarters an ADMS was appointed to advise the GOC. In Independent Brigade Areas the duties of the ADMS were performed by an ADMS or by a senior executive medical officer (SEMO). In military stations, the officer commanding military hospital, or the senior among such officers if there were more than one hospital in the station, was appointed SEMO of the station. He advised the officer commanding the station on all general medical and hygiene matters affecting the troops stationed there and also on all matters concerning medical arrangements in connection with the movements of troops, mobile columns, training camps, etc. He was also the health officer of the cantonment and, as such, a member of the cantonment board.

In June 1937, the organisation of the Commands, Districts and Independent Brigade Areas was as under<sup>39</sup> —

<i>Northern Command</i>	<i>Western Command</i>	<i>Eastern Command</i>	<i>Southern Command</i>
Peshawar District	Baluchistan District	Meerut District	Deccan District
Rawalpindi District	Zhob (Independent) Brigade Area	Lucknow District	Bombay District
Lahore District		Presidency and Assam District	Madras District
Kohat District			
Waziristan District	Sind (Independent) Brigade Area	Delhi (Independent) Brigade Area	Poonah (Independent) Brigade Area

At the Headquarters of each Northern and Western Commands were a DDMS, an ADH & P and a DADMS (Mobilisation). Northern Command had a DADMS in addition, and Headquarters, Eastern Command had a DDMS, an ADH & P and a DADMS. The staff of Headquarters, Southern Command, included a DDMS, an ADH, an ADP and a DADMS. Five districts (Peshawar, Rawalpindi, Lahore, Meerut and Lucknow) had an ADMS, a deputy assistant director of hygiene (DADH), a deputy assistant director of pathology



(DADP) and a SC(M), each. Three districts (Baluchistan, Deccan and Bombay) each had an ADMS, a DADH and a DADP. Headquarters, Waziristan District had one ADMS, one DADMS and one DADP. Three districts (Kohat, Presidency and Assam and Madras) had an ADMS and a DADP, each. The DADsH at Peshawar, Rawalpindi and Lucknow also looked after Kohat, Waziristan and Presidency and Assam districts, respectively ; and the ADMS, Meerut district, looked after Delhi (Independent) Brigade Area.

On 6 December 1938, Western Command was re-organised into Western (Independent) District comprising Zhob, Quetta and Khojak Brigades and Sind Brigade Area. The medical staff authorised for the district was an ADMS, a DADH, a DADP and two SCs Medical (M). The appointment of one SC(M) was abolished on 7 November 1939. A SC(M) was also authorised for Deccan District on 6 December 1938. He was later transferred to Poona (Independent) Area with effect from 1 April 1939. From 10 June 1939, DADMS at Waziristan District was substituted by a DADH, and DADH, Rawalpindi District, was no longer responsible for Waziristan District.

In September 1939, India was divided into three Commands, (Northern, Southern and Eastern) and a Western Independent District. In May 1942, this organisation was changed and three Armies (North-Western, Southern and Eastern) and a Central Command were formed. By the middle of October 1943, the Eastern Army was divided into the Eastern Command and the Fourteenth Army. Other organisational changes also took place from time to time,<sup>40</sup> and the medical organisation was altered accordingly. The medical staff at the Headquarters of Armies and Commands more or less remained as before, except that consultants and advisers in various subjects were also posted. The basic staff of an area consisted of ADMS, DADMS, DADH and DADM, and larger areas had an additional SC(M). The sub-areas in most cases had a DADH or a DADMS or both.

The number of staff officers employed at the Headquarters of Armies, Commands, Districts and Areas increased from 64 to 211 as follows :—

<sup>40</sup> See Appendix X

Appointment	PHASE I		PHASE II		PHASE III	
	November 1939 to April 1942		May 1942 to October 1943		November 1943 to October 1945	
	Commands/ Armies	Districts/ Areas	Commands/ Armies	Districts/ Areas	Commands/ Armies	Districts/ Areas
DDMS	3		4	2	5	1
ADMS		15	6	18	5	18
ADH & P	2		1			
ADH	1		3		5	
ADP	1		4		4	
ADM			3		5	
ADDS			2		4	
DADMS (mobilisation)	1					
DADMS (stores)			4		3	
DADMS (training)					1	
DADMS	3	3	3	23	5	30
DADH		14	2	25	3	31
DADP		12		13		2
DADM			1	4		16
SC	2	1	6	4	4	7
SC (malariaology)			1		2	
SC (nutrition)					1	
SC (M)	1	5		6	1	6
Honorary consultant			1			
Consultant ophthalmologist			1		1	
Consultant physician			3		3	
Consultant (ENT)			1		1	
Consultant surgeon			2		3	
Adviser in neurology					2	
Adviser in psychiatry					3	
Adviser in anaesthetics					4	
Adviser in venereology					4	
Adviser in ophthalmology					2	
Adviser in radiology					4	
Adviser in (ENT)					4	
Adviser in dermatology					4	
Nutrition officer					1	
Principal matron (PM)			4		5	
Staff matron (SM)			4		4	
Matron examiners					7	
Total	14	50	56	95	100	111

## CHAPTER II

# The Formation of the Indian Army Medical Corps

In September 1939, the medical services of the Army in India were not organised for expansion to a size commensurate with a major war. Their commitments at that time were restricted to the hospitalisation and medical supervision of the existing garrisons, and to the maintenance of a small nucleus of units and stores for the formations earmarked for active service on or beyond the frontiers of India.

It was soon obvious that the Army would have to expand rapidly and that a large number of medical officers would be required for such expansion. With the entry of Japan into the war and the subsequent direct threat to India, the situation became serious, and early expansion of the armed forces and their medical services was imperative. The problem of finding medical officers for the Army was complicated by a serious shortage of medical practitioners in India,<sup>1</sup> the unattractive terms of service offered to the Indian medical graduates and licentiates in the early stages of the war, and the inability to increase the rate of recruitment to the IMS in the United Kingdom.

### INITIAL EXPANSION OF THE IMS<sup>2</sup> AND IMD

*IMS* : At the commencement of hostilities, the actual strength of the IMS in military employ was 366 (143 Indian and 223 British).<sup>3</sup> Of the 265 IMS officers in civil employment at that time, 133 belonged to the war reserve, 73 to the residuary cadre and the remaining 59 were supernumerary.<sup>4</sup> In addition to these, there was an authorised reserve of 300 Army in India Reserve of Officers (Medical) (AIRO) (M)<sup>5</sup>—and 29 Indian Reserve of Retired Officers (IRRO). Initially, the IMS was expanded by recalling the reservists.

*Recall of IRRO* : In accordance with the arrangements made in June 1939, retired IMS officers in the United Kingdom who were liable to recall in an emergency were warned to hold themselves in readiness to return to India when required. In September 1939, 29 such officers sailed for India.<sup>6</sup>

*Recall of AIRO(M)* : The actual strength of the AIRO(M) on 1 September 1939, was 261.<sup>7</sup> A proportion of this reserve consisted of released temporary or short service IMS officers who had a liability

<sup>1</sup> The number of medical practitioners available was estimated to be approximately 41,000 (14,000 graduates and 27,000 licentiates) A/6/18/H(M).

<sup>2</sup> For early history of the IMS see Appendix XI.

<sup>3</sup> A/4/18/H(M)

<sup>5</sup> F/Z-18746/H(M)

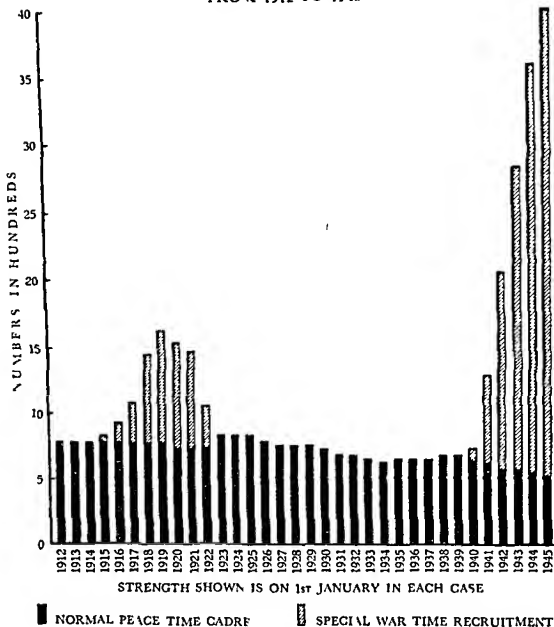
<sup>7</sup> F/Z-19361/H(M)

<sup>4</sup> H/4/50/H(M)

<sup>6</sup> A/4/18/H(M)

4

# YEARLY NUMBERS IN PEACE & WAR TIME CADRES OF IMS FROM 1912 TO 1945



to join the reserve under the terms of their original agreements. The rest were civilian officers of gazetted status or private practitioners. It was decided to recall such officers of this reserve as were prepared to volunteer, and those not prepared to volunteer were asked to resign. The call-up of AIRO(M) began in September 1939, and up till July 1942, 210 officers had been recalled to military duty.<sup>8</sup>

*Recall of Officers on Leave Pending Retirement :* By January 1940, 4 officers on leave pending retirement and resignation from the military side had been recalled to duty. It was, however, decided in April 1940, that all officers would retire on reaching the age of superannuation but might be re-employed if required and if they volunteered. Later in May 1941, it was decided that retired IMS officers recalled to duty should continue to serve as long as the exigencies of service required, irrespective of their attaining the age of superannuation. The number of IMS retired officers employed in the Army on 1 March 1943, was 40.<sup>9</sup>

*Recall of War Reserve Officers from Civil Employment :* In April 1940, the recall of war reserve officers from civil employment started. Officers joined the armed forces in small batches of ten, and, later, even of five. When recruitment to the emergency cadre commenced, it was decided to adopt a system of blending, i.e. meeting Army demands partially by the recall of officers in civil employment and partially by open recruitment. By the end of 1941, all war reserve and supernumerary officers had been recalled, with the exception of a few who were holding administrative posts. About the middle of 1942, it was decided to withdraw even the residuary officers. By the end of 1944, a total of 170 IMS officers had reported for military duty.<sup>10</sup>

*Recruitment to the IMS Emergency Commission (EC) :* From June 1940, the demand for medical officers of the IMS began to increase rapidly and recruitment to the IMS(EC) was initiated. The terms and conditions of service in the IMS(EC)<sup>11</sup> were changed from time to time. The following were some of the important changes made :—

- (i) Raising of the age limit for entry from thirty-two to forty-five, with further relaxation in individual cases up to fifty.
- (ii) Grant of ante-date for professional experience equal to half the period from the date of qualification to the date of appointment, subject to a maximum of five years.
- (iii) Grant of ante-date of commission up to eighteen months for higher qualifications and hospital appointments held before recruitment.
- (iv) Award of gratuity on demobilisation at the rate of Rs. 2,000 for the first completed year of Army service in the case of those who obtained their basic registrable qualifications before 1 January 1940, and Rs. 1,000 in the case of others.

<sup>8</sup> A/2/60/H(M).

<sup>9</sup> F/Z-19455/H(M), F/Z-20770/H(M), H/4/50/H(M)

<sup>10</sup> H/4/50/H(M), F/Z-20766/H(M).

<sup>11</sup> See AI(I) 274/1944 as amended from time to time

- (v) Preference to emergency commissioned officers in filling vacancies in the permanent service after the war
- (vi) Relaxation in the standard of professional qualifications so that certain degrees and diplomas which had hitherto not been regarded as of sufficiently high standard were accepted as adequate for the purpose of the grant of commissions
- (vii) Grant of a stipend of Rs 100 per month and the payment of examination fees of such final year students in the approved medical colleges as had agreed to serve in the IMS on qualification<sup>12</sup>

To supplement the IMS general service cadre, recruitment of the following special categories of officers was also started<sup>13</sup> European doctors in India and the United Kingdom, (October 1940), assistant surgeons of the IMD (BC) in IMS(EC) (June 1941), medical graduates employed in state-managed or company-managed railways (October 1941), specialists on special terms (January 1942), women medical practitioners (January 1942), and IMS (EC) service within Indian limits (June 1942), CMPs graduates (September 1941), and civilian anti-malaria officers (February 1942)<sup>14</sup>

#### EXPANSION OF THE IMD<sup>15</sup>

At the commencement of hostilities, the actual strength of the IMD in military employ was 346 assistant surgeons and 578 sub-assistant surgeons<sup>16</sup> In addition, there was an authorised reserve of 150 sub assistant surgeons<sup>17</sup> All sub-assistant surgeons employed by the Provincial Governments were liable for military duty in India during the first ten years of their service if engaged prior to 31 August 1920, and anywhere in and out of India, if engaged after that date<sup>18</sup> The total number of such sub-assistant surgeons at the outbreak of war was 649<sup>19</sup> There were also 74 war reserve and 19 residuary assistant surgeons, and 43 reserve and 30 residuary sub assistant surgeons in civil employ<sup>20</sup>

*Recall of Sub-Assistant Surgeons (Reservists)* The first step in the expansion of the IMD (IC) was the recall of the reservists Out of a total of 142 reservists available<sup>21</sup> at the commencement of hostilities, 116 were thus serving<sup>22</sup> in the Army on 1 April 1943

*Embodiment of Civil Sub-Assistant Surgeons in the Emergency Cadre of the IMD* The embodiment of the civil sub assistant surgeons in the Army was started in June 1940, and their terms and conditions

<sup>12</sup> A/6/39/H(M)

<sup>13</sup> See also page 101

<sup>14</sup> A/6/9/H(M)

<sup>15</sup> For early history of IMD See Appendix XII

<sup>16</sup> A/4/18/H(M)

<sup>17</sup> RMS (I) Appendix 29

<sup>18</sup> RMS (I) Para 47

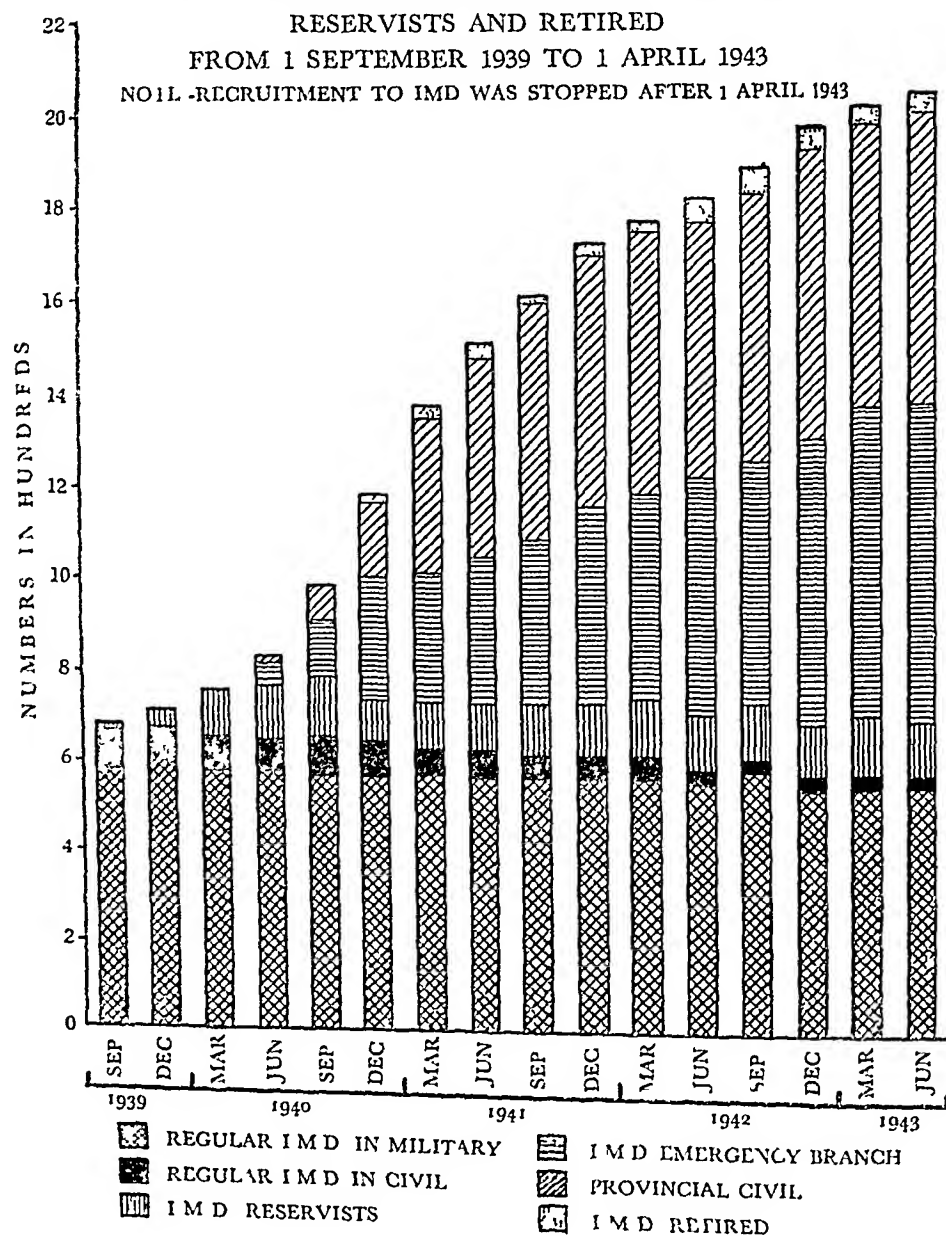
<sup>19</sup> A/6/17/H(M)

<sup>20</sup> H/4/54/H(M)

<sup>21</sup> F/Z-22821/H(M)

<sup>22</sup> A/4/53/H(M)

QUARTERLY STRENGTH OF I M D ASSISTANT SURGEONS (INDIAN CADRE)  
EMPLOYED IN MILITARY AND CIVIL SERVICES,  
RESERVISTS AND RETIRED  
FROM 1 SEPTEMBER 1939 TO 1 APRIL 1943  
NO I L -RECRUITMENT TO IMD WAS STOPPED AFTER 1 APRIL 1943



of service were issued on 31 July 1940<sup>23</sup> The total number of sub-assistant surgeons thus recruited in the Army uptill March 1943, was 645<sup>24</sup>

*Recall of IMD (IC) from Civil Employ* Steps were also taken to recall the IMD (IC) in war reserve and residuary appointments in civil employ and by January 1943, 41 war reserve and 30 residuary sub assistant surgeons had been called up for military duty, leaving only two of the war reserve in civil employ<sup>25</sup>

*Re-employment of Retired Sub-Assistant Surgeons* Many retired sub-assistant surgeons also offered their services for re-employment The number of such volunteers was about 165 Their terms of re-employment were sanctioned on 31 August 1940<sup>26</sup> About 50 retired sub-assistant surgeons who were found physically fit and considered suitable, were re-employed in the Army, and a few were re-employed in civilian establishments under the Central Government A fairly substantial number, however, expressed their unwillingness to be re-employed on the terms sanctioned The terms of service, were, therefore, amended in 1941 All retired VCOs of the IMD (IC) were then entitled to further promotion and increment in pay and could get the minimum pay of rank plus pension Their further service was counted for increased pension if the minimum pension had not already been earned

Retired sub-assistant surgeons, who were not in receipt of any pension or gratuity, were also taken into the emergency branch of the IMD(IC) on the same terms as for other private practitioners, with the advantage that they could count their previous service in the rank of jemadar in the department for purposes of seniority, pay and promotions All IMD (IC) personnel reaching the age of superannuation were also offered these concessions<sup>27</sup>

*Compulsory Retention of IMD(IC) Personnel reaching the Age of Superannuation* In October 1941, orders were issued for the compulsory retention of all IMD(IC) personnel They were, however, given the option of re-employment Those declining were compulsorily retained and allowed to draw provisionally the pay that they were receiving before reaching the age of superannuation Those accepting re-employment were employed under the terms issued in August 1940 Later, it was decided to retain compulsorily all IMD personnel whose retirement was due after 21 October 1941 By March 1943, two members of the IMD (IC) were compulsorily retained in service and forty were re-employed<sup>28</sup>

*Recruitment to the IMD (Emergency Branch)* Recruitment to a separate cadre called the emergency branch of the IMD(IC) was

<sup>23</sup> See Government of India Defence Department letter No 265 Med/4/D 1 Dated 31 July 1940 as amended from time to time (L/6/14/H(M))

<sup>24</sup> A/5/14/H(M) <sup>25</sup> H/4/54/H(M)

<sup>26</sup> See Government of India Defence Department letter No Z 20797/1/ DMS 1, dated 31 August 1940 as amended from time to time (L/6/9/H(M))

<sup>27</sup> H/4/54/H(M) <sup>28</sup> H/4/54/H(M), A/4/453/H(M)



commenced in April 1940. The terms and conditions of service of this cadre were also subsequently improved to attract recruits.<sup>29</sup> The important concessions granted included the following : appointments in the rank of jemadar (VCO) direct instead of WO as formerly; change of the designation of sub-assistant surgeons to assistant-surgeons IMD(IC) ; grant of an emergency allowance of Rs. 125 in addition to the basic pay of rank ; grant of an ante-date of service for professional experience and higher qualifications on the same lines as for the IMS, and increased number of promotions in higher ranks, i.e., subedar-major and honorary lieutenants, etc.<sup>30</sup>

In addition to the measures mentioned above, the PSOs Committee in May 1941, noted the desirability of making better use of the IMD personnel as medical officers. Consequently, in order to relieve IMD officers for active medical work, the following auxiliary services were also established : a cadre of CMPs (licentiates) (November 1941), a cadre of technicians, (January 1942), a cadre of anti-malaria assistants (February 1942) and IMD (IC) for service within Indian limits (July 1942).<sup>31</sup>

*Re-employment of Retired Assistant Surgeons IMD(BC) :* Many retired members of the IMD(BC) also offered their services for re-employment. Their terms and conditions of re-employment<sup>32</sup> were issued on 22 August 1940, and about 45 assistant surgeons were then re-employed. All assistant surgeons on reaching the age of superannuation were also re-employed on the same terms as for the retired re-employed. Terms and conditions of re-employment of ex-IMD(BC), who were not in receipt of a pension or gratuity, were also formulated on 17 May 1941. However, only one assistant surgeon of this category was employed and he was later granted an emergency commission in the IMS.<sup>33</sup>

*Recall of Assistant Surgeons IMD(BC) from Civil Employment :* The first batch of assistant surgeons IMD(BC) from civil employment was recalled to military duty by 10 January 1941. The war reserves were recalled first and then those holding residuary posts. By January 1943, all the 74 assistant surgeons in civil employment as war reserve and 5 out of the 19 residuaries, had been recalled. The remaining 14 residuaries could not, however, be spared for military duty.

*Grant of Emergency Commissions in the IMD(BC)* The field of recruitment in India for the IMD(BC) was extremely limited. No emergency cadre in this department was, therefore, started. In order to fill the authorised vacancies in the commissioned ranks, it was decided in May 1942, to grant emergency commissions in the IMD-(BC) to selected WOs of the cadre, on the recommendation of a selection board set up under the chairmanship of the DGIMS.<sup>34</sup>

<sup>29</sup> See Government of India, Defence Department letter No Z-19551/1/DMS1, dated 16 November 1939, as amended from time to time, L/6/7/H(M)

<sup>30</sup> A/6/8/H(M)                      <sup>31</sup> A/6/10/H(M)

<sup>32</sup> See Government of India, Defence Department letter No Z-20751/1/DMS 1 dated 22 August 1940, as amended from time to time, L/6/10/H(M).

<sup>33</sup> H/4/54/H(M).                      <sup>34</sup> H/4/54/H(M)

## REDUCTIONS IN THE ESTABLISHMENTS

Besides the measures mentioned above, the establishments of medical units were constantly under revision in order to meet the changing conditions and also to make reductions in the authorised staff. On 26 July 1940, all commands and districts were addressed on the subject of establishments for hospitals, and it was pointed out that officers commanding hospitals were authorised to arrange for their actual requirements of medical personnel with the ADsMS concerned on the basis of 5.5 per cent of the beds for Indian and 8 per cent for British troops. It was emphasised that medical officers must make the utmost use of the depleted staff, and should not keep unnecessarily a large staff in their hospitals, as this would deprive the other medical units of their legitimate requirements. Appeal to the GHQ for help was only to be resorted to when suitable local arrangements appeared impossible. This was followed by another letter on similar lines issued on 3 August 1940. In May 1941, the PSOs Committee recommended that more economical use of the doctors should be made after a thorough revision of the scales of personnel. In the category of doctors were included IMS and RAMC officers and assistant surgeons IMD (IC and BC).

It was felt that, without drastic reductions, the commitments for the forces that were then being prepared for Iraq, could not be met. New scales were, therefore, drawn up. The principle, as stated above, was to lump together medical officers and assistant surgeons as a cadre of doctors. Compounders and dressers, who were to perform most of the duties of sub assistant surgeons, were also added to this category as they were recruited. By this reduction a saving of 843 doctors was estimated. The change did involve a lowering of standards,<sup>35</sup> but it provided for adequate treatment for all. This change<sup>36</sup> was accepted in June 1941, by the C-in-C India.

## MEDICAL OFFICERS FOR ORDNANCE FACTORIES AND RECRUITING DUTIES ETC

In pursuance of the general policy to release military medical officers for active duties, it was decided to employ civil sub-assistant

<sup>35</sup> A few examples of reduction in the medical staff are given below —

Specialists were practically full time general duty officers, practising their speciality in their spare time. They were not available for treating officers and their families for trivial complaints but only in cases where a consultant would normally be called in civil life.

Medical personnel could not normally be provided for company training camps, train conducting duties of healthy men etc. A nursing orderly was provided for first aid work and the cases which could not be dealt by him were sent to a military hospital.

Category A recruiting medical officers were replaced by men of lower medical category.

New war establishments for field ambulances combined general hospitals, Indian and British convalescent depots and ambulance trains were sanctioned from which assistant surgeons (IMD BC) were eliminated. L/1/21/H(M)

<sup>36</sup> A/2/58/H(M)

surgeons, members of the provincial medical department, in place of the IMS officers employed in the ordnance factories, ordnance depots and on recruiting duties. Terms and conditions of their employment were issued on 15 November 1941. Moreover, sanction was also given for the employment of sub-assistant surgeons from the Indian States on these duties on 18 November 1942, sub-assistant surgeons (Burma) on 6 September 1943, and women medical practitioners in December 1943. Up to the end of August 1945, 206 sub-assistant surgeons were deputed for recruiting duties, 19 for ordnance depots and 156 for ordnance factories. From March to August 1945, 26 medical officers were also recruited for civil labour units.<sup>37</sup>

#### REPLACEMENT OF MEDICAL OFFICERS BY NON-MEDICAL OFFICERS AS REGISTRARS AND QUARTERMASTERS

The shortage of medical officers also made it necessary to explore the possibility of appointing non-medical officers to certain appointments normally held by medical officers, which were of a purely administrative nature and did not require professional knowledge. Accordingly in August 1942, it was decided that the appointments of registrars and quartermasters in hospitals, where authorised, were to be filled by combatant officers, quartermasters of the special list or Women Auxiliary Corps (India) (WAC(I)), thus releasing an equal number of medical officers, performing these duties.<sup>38</sup>

#### THE MEDICAL PERSONNEL SITUATION IN 1942

On 20 September 1942, the AG reviewed the medical personnel situation. It was observed that in spite of all efforts to increase the intake of medical officers, the Indian Army was faced with a shortage of about 793. Medical planning was on the basis of ten Indian and two British divisions with the line of communication troops for the field army, frontier defence and internal security units and training establishments, etc. (approximately 1,350,000 Indian and 187,000 British troops and some 40,000 Royal Air Force (RAF) personnel). In base and garrison hospitals, the scale of medical officers had already been reduced from 4·5 to 2·5 per 100 beds. The rate of casualties allowed in the plan was 10 per cent. for the two-thirds of the field army and 5 per cent. for the remainder. For the garrisons in India, the allotment of hospital beds was 3 per cent. for Indian and 5 per cent. for British troops. The medical commitments at the time included the hospitalisation of casualties from the Middle East, Persia and Iraq. The provision of beds for this purpose was 1·5 per cent. for Indian and 2·5 per cent. for British troops. The beds in garrison hospitals were already 80 per cent. full. The normal wastage figure for medical officers allowed in these calculations was 2 per cent. The actual situation was as follows :—

<sup>37</sup> A/5/14/H(M), P/1/39/H(M)

<sup>38</sup> F/2057/H(M)

	<i>Assets</i>	<i>Liabilities</i>
IMS	2,336	3,168
RAMC	1,071	1,356
CMPs	298	
Registrars to replace medical officers at 50 per cent of demand	38	
Anticipated recruitment in India at 50 per month—September to December	200	
Anticipated arrivals from the United Kingdom at 50 per month—October to December	150	
Wastage at 2 per cent per month from September to December including 1,000 IMS overseas		362
Total	4,093	4,886
Gross deficit	793	

The AG suggested that immediate conscription could alone prevent the breakdown of the medical services. He also urged that regular despatches of 50 doctors per month should be made from the United Kingdom.<sup>39</sup>

In October 1942, the Provincial Governments were also requested to review the requirements of the Provincial Medical and Public Health Services and to determine the maximum number of medical graduates and licentiates who could be released for military service. They were also requested to consider the feasibility of releasing older men who might be suitable for employment as specialists in the Army. Some adjustments were also suggested to them by which government servants could be released for military employment. These adjustments were to involve combination of posts, employment of retired officers and private medical practitioners on a whole or part-time basis, or temporary reduction of posts. It was further proposed that men under forty years of age, who were fit for military service, should not be recruited from the open market to fill the vacancies arising from the appointments vacated by those who reported for military duty.<sup>40</sup>

#### THE MEDICAL PERSONNEL (ARMY IN INDIA) MISSION

On 3 October 1942, the Secretary of State for India informed the Government of India that the Medical Personnel (Priority) Committee in the United Kingdom, which controlled the release of doctors for the services, was finding it more and more difficult to provide medical men. In order to satisfy the committee fully concerning the imperative character of India's needs, he suggested that an eminent member of the committee should be invited to India to examine the situation and that he should be accompanied by colleagues familiar with the organisation and needs of army medical services and with the general medical situation in India, both civil and

<sup>39</sup> A/2/58/H(M)

<sup>40</sup> A/6/18/H(M)

military. The suggested terms of reference for the committee were as follows :—

“ To discuss with the Indian authorities the situation with regard to the supply of medical and nursing personnel for the forces and to make recommendations as to the numbers required from the United Kingdom and the best use of such resources as were and could be made available ”.

The composition of the Medical Personnel (Army in India) Mission was finally settled by the end of October 1942. The mission consisted of :—

Dr H S Souttar, CIE, MD, FRCS, Chairman, Central Medical War Committee, representing the Medical Personnel (Priority) Committee in the United Kingdom	<i>Chairman</i>
Lieut.-General A Hood, CBE, MD, KHP, DGAMS	<i>Member.</i>
Major-General Sir Earnest Bradfield, KCIE, OBE, MB, FRCS, IMS (Retd)	<i>Member</i>
Lieut -Colonel J. T Robinson, RAMC	<i>Secretary.</i>

The Secretary of State further suggested that an officer of the IMS having knowledge of the personnel side in India should be attached to the mission. Colonel B. Basu, IMS was selected for the purpose. In order to ensure the support of the medical profession as a whole for the recommendations of this mission, it was further suggested that meetings at which they were represented should be arranged.

The mission left the United Kingdom on 13 November 1942, and after visiting the Middle East, and Persia and Iraq Force, where they saw the medical arrangements in the Indian divisions, arrived in Delhi on 13 December 1942. The members of the mission, after touring India for nearly three months to investigate medical problems in the country, recommended that fuller use should be made of the medical licentiates and that a homogenous Indian Army Medical Corps should be formed.<sup>41</sup>

The proposals made by the mission were considered by a committee of the War Department under the chairmanship of the AG and consisting of the DGIMS, the DMS, Additional Secretary War Department, Additional Financial Adviser and two representatives from the Medical Directorate.

The committee discussed the recommendations and advised that provided selection in the first instance was carefully made, both from the professional and physical points of view, and that all entrants were required to undergo a preliminary course at an army medical training centre, the use of licentiates as medical officers could and should be accepted. By this change, some risk of deterioration in the standards of treatment was recognised, but the risk was considered to be one which could be legitimately taken. At the same time, the committee recognised the necessity of improving the conditions of service of this category of personnel, both as an incentive to

<sup>41</sup> See Appendix XIII.

recruitment and as a preventive of future agitation. These improvements were divided under two main heads, *viz* the type of commission which the licentiates should receive and rank and pay.

The only form of commission then offered to the medical officers was an emergency commission in the IMS, but it was restricted to those in possession of medical qualifications which were recognised by the General Medical Council. The grant of such commissions to the licentiates was, therefore, open to obvious objections. On the other hand, a departmental commission in the IMD was inadequate to achieve the desired object, on account of the lower status of that commission. It was, therefore, proposed that the medical licentiates should receive a commission equivalent in all respects to that of the other officers in the Indian Land Forces. It was further proposed that with regard to pay, a medical licentiate should be placed in a position at least analogous to the ordinary non-medical emergency commissioned officer.

It was, however, realised that these terms were such as might affect the whole structure of the medical profession in India and were open to the criticism in that they accorded to the licentiate, in time of war, a position which it may not be possible to maintain in times of peace.

The committee of the War Department also reviewed the anticipated recruitment of medical officers up to the end of June 1943, under three separate headings —

- (i) Conscription, but retaining the then existing medical organisation, *i.e.* licentiates used only to a limited degree as at that time
- (ii) Conscription combined with the use of licentiates as medical officers
- (iii) The continuance of voluntary recruitment together with the use of the licentiates as medical officers

Their conclusion was that the second course alone would prove satisfactory in terms of numbers. However, there were uncertain factors requiring serious consideration, namely the possible resistance of the medical profession to conscription, the proportion of licentiates who would have to be rejected as unsuitable for duty as medical officers, and the voluntary response which might be expected from licentiates under the improved terms of service. It was considered by the committee that the third course would very nearly satisfy the military requirements. The committee, therefore, recommended the continuation of voluntary recruitment together with the use of the licentiates as medical officers.

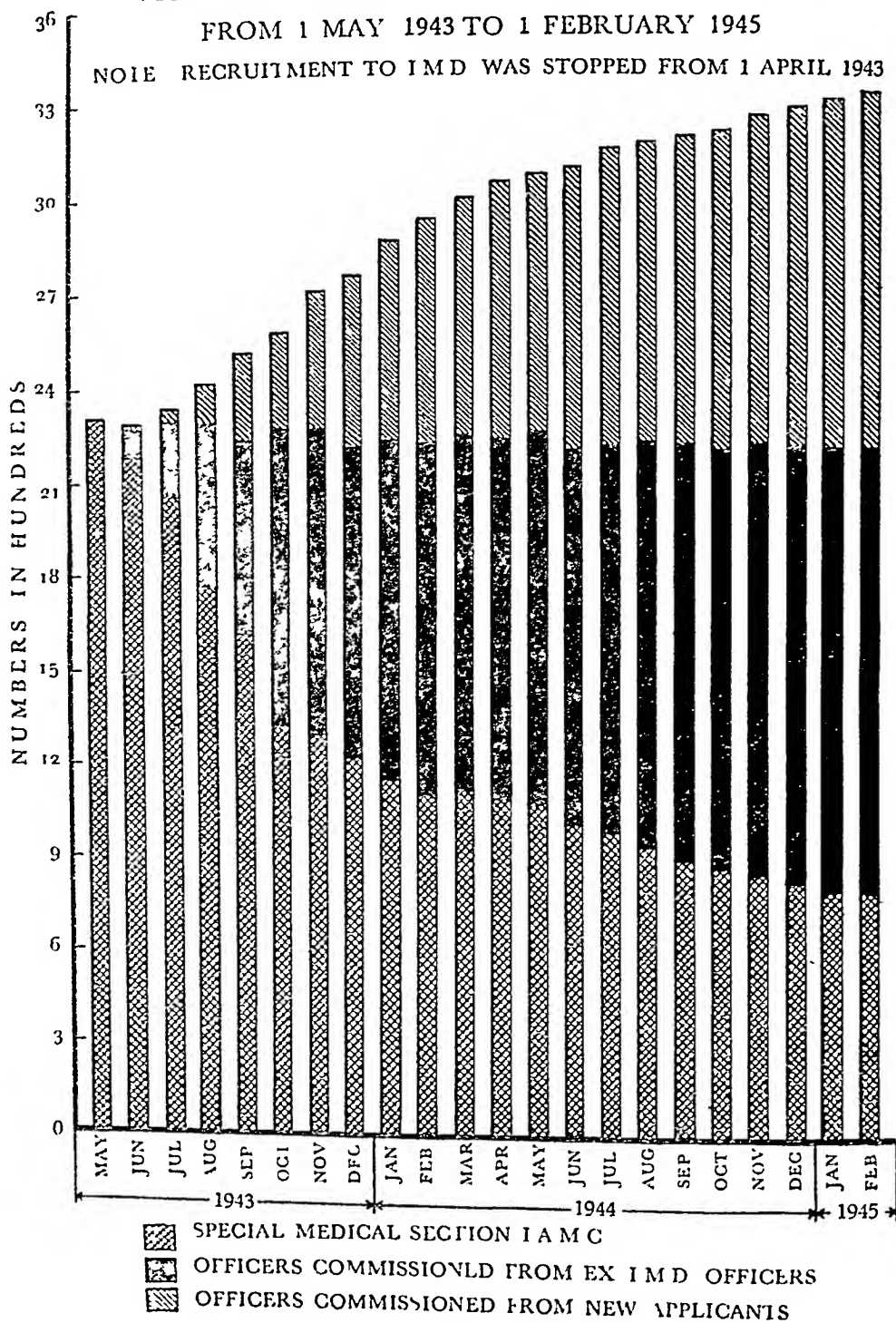
These findings were approved by the Executive Council of the Governor General on 27 January, 1943.

#### THE FORBES COMMITTEE

In the meantime, the AG had issued a directive on 25 January 1943, for the formation of a committee under the chairmanship of

# MONTHLY STRENGTH OF I A M C. (LICENTIATES) FROM 1 MAY 1943 TO 1 FEBRUARY 1945

NOTE RECRUITMENT TO IMD WAS STOPPED FROM 1 APRIL 1943



Brigadier A T G Forbes and composed of two representatives from the Medical Directorate, one from the DGIMS and one from the Military Finance Department. The terms of reference of the committee were to draw up a comprehensive scheme in full detail for the formation of an Indian Army Medical Corps. The following main policy directions were given to this committee —

- (i) Officers of the regular IMS cadre were to be seconded to the new corps
- (ii) All emergency commissioned officers of the IMS and IMD were to be transferred to the new corps, and all future entrants were to be recruited in that corps
- (iii) In no wise were the existing incumbents to suffer in pay, allowances or other privileges
- (iv) Graduates should continue to receive minimum terms as at that time

The Forbes Committee deliberated for nearly two months and its final report was completed on 23 March 1943. According to the committee it was strange that the large number of different elements which formed the medical services for the Army in India had not been amalgamated earlier, it was even more anomalous to find, in one case, only an officer cadre, and in another, a corps with no officer cadre of its own at all. In the opinion of the committee there was no insurmountable objection to the formation of the IAMC.<sup>42</sup>

#### FORMATION OF THE IAMC

Government orders regarding the formation of the IAMC, with effect from 3 April 1943, were prepared, and these received the approval of the Secretary of State on 14 March 1943, and were issued in a Special Army Instruction (India) dated 29 March 1943.<sup>43</sup>

The amalgamation or embodiment of various elements of the medical service into one homogeneous corps altered the respective responsibilities of the two directors, DGIMS and DMS. Permanent records and matters connected with the terms of service and promotion of all regular and emergency IMS officers remained with DGIMS, who was the statutory head of the IMS. The records of all personnel transferred to the new corps became the responsibility of the DMS in India. The latter also became the administrative head of the military medical organisation of the Army in India. He was not, however, concerned with the medical personnel in civil government employ, save only for their recall to military service.

The formation of the IAMC did not affect the IMS officers who were merely seconded to the corps and retained their own terms and conditions of service. With regard to the IMD and the licentiates, the formation of the corps revolutionised the whole aspect of their terms of service and prospects. They were given a status for which

<sup>42</sup> A/6/6/H (M)

<sup>43</sup> See AI (I) 114/1943 as amended from time to time



all licentiates, both in the military service and in civil employ, had been clamouring for a long time.

Officers of the IMS and personnel of the IMD still in civil employ remained unaffected by the formation of the IAMC. It had not been realised that these terms, hastily drawn up, though resulting in great improvements in the case of licentiates in military employ, would have repercussions on a certain section of the IMD. There were certain anomalies in the new terms which gave rise to a genuine sense of dissatisfaction. While there was a provision concerning preservation of existing service rights, all departmental promotions were stopped. The civil section, which was denied the new status of commissioned officers coupled as it was with enhanced rates of pay, was greatly agitated. There were about 30 IMD officers in civil employ. Most of them applied for reversion to military duty, but as they were all holding residuary posts directly connected with the war effort, they could not be allowed to do so. This was a difficult situation. The C-in-C did not consider these officers for commissions in the IAMC as long as they did not revert to military duty. The other alternative, that was still under consideration when the war ended, was the grant of pay and allowances to these officers at the same rates as they would normally expect to receive if they had reverted to military duty. This proposal, while giving the financial benefit, did not meet the objection of an inferior status.

To safeguard the interests of the IMD in military employ it was decided to compile a shadow register of promotions in which no IMD assistant surgeon would be denied the rank or position he would have attained at the time of retirement had he continued in the IMD and not been transferred to the IAMC.<sup>44</sup>

<sup>44</sup> H/4/51/H (M).

For IHC/IAMC See page 86

For Recruitment of Medical Officers and Technicians See page 98

## CHAPTER III

# The Medical Services of the Royal Indian Navy

The history of the medical services of the navy goes back to the days of the East India Company. From the beginning the Company provided some sort of marine medical service to meet the requirements of their ships' crews. In 1863, the Indian Navy of the East India Company ceased to exist and was reformed under the Crown as the Bombay Marine. During the next fourteen years the Bombay Marine carried out various non-combatant duties such as trooping and the laying of sub-marine telegraph cables from Bombay to Suez. In 1877, the service was reorganised and became His Majesty's Indian Marine. Its duties remained unchanged, however, till 1920. As a recognition of its meritorious services the name of the Indian Marine was changed to the Royal Indian Marine (RIM) in 1892.

Every ship of the Marine carried an assistant surgeon WO of the IMD(BC), who was in medical charge of the ship. These assistant surgeons wore Army uniforms, received Army rates of pay and allowances and drew their stores from Army sources. They were seconded to the RIM for about two to three years, which period could be extended, if necessary. One of the ships *Investigator* in addition carried an officer of the IMS as surgeon naturalist.

1914-1918

At the outbreak of World War I the RIM was taken over by the Royal Navy (RN) and worked in conjunction with it. The RIM expanded considerably as the war progressed. Several ships and small craft were built or requisitioned. During this period each of the large ships carried one assistant surgeon IMD(BC) to look after and treat the ship's company. The *Dufferin*, the *Northbrook* and the *Hardinge* in addition had a medical officer of the IMS or the Royal Navy Volunteer Reserve (RNVR). The duties of the medical officers and assistant surgeons were not clearly defined. The IMS and RNVR officers felt that they were there to look after the naval officers only and relegated the medical care of others to the assistant surgeon. This led to frequent dissatisfaction amongst the latter.

Bombay was the main base of the navy. The dockyard, the Admiral's headquarters and administrative offices were located there. A medical inspection room was, therefore, opened there, which was staffed by a commissioned officer of the IMD(BC) assisted by two assistant surgeons. All the naval personnel and civilian naval employees in the port and dockyard were treated in this medical inspection room. Serious cases requiring hospitalisation were transferred to the local military hospital.

unsuitable for any other job on the ship. In the absence of a trained sick berth attendant (SBA) all the work of maintaining registers, documents and other clerical work and ordinary dispensing of medicines and minor first aid had all to be done by the medical officer himself. At least he had the satisfaction of knowing that these things were done properly. If the surgeon's mate remained long enough with a medical officer he came to learn to be generally useful and could even take over certain of the minor duties of the SBA.

To standardise and establish a sickberth branch, volunteers were called for from the seaman and stoker branches and a batch of ten ratings was selected. They were sent to Military Hospital, Poona, for training and attended a twelve-months course in theoretical and practical nursing and first aid. After this training they were posted to the ships and establishments for further training by the medical officers under whom they worked. This original batch formed the nucleus of the SBAs branch.

In 1914 batches were selected from new entrants in the seaman and stoker branches for training as SBAs. They received instruction in a military hospital when this facility was available. The military hospital, in Colaba was then the main hospital to which these batches were sent for training. At other times they were given instruction by the medical officer of the establishment to which they were attached. A start was also made ashore to provide regular classes and to secure uniformity of nursing and first aid instruction to all SBAs. An outline plan was provided to medical officers on which to base their syllabus.

A great step in the formation of the SBAs Branch was taken in 1937 when ratings were enrolled for the branch by direct recruitment. It was essential to get the right type of men, with some basic education and with a keenness for this type of work. However, due to the low pay of Rs. 25 per month, men with the requisite qualifications were not forthcoming. With the best that were available the SBAs branch was expanded and kept up to the strength by periodic recruitment. Their training continued to be as before, first in the various military hospitals, and later by posting them to various ships and establishments.

#### MEDICAL ARRANGEMENTS

*Ships* . Each of the six sloops of the RIN carried one medical officer who was in medical charge of the ship. Each of these ships had a sick bay fitted with two beds and capable of taking an additional two beds or stretchers. The supply of medical stores and equipment was based on the scale laid down for an Army medical inspection room of a unit of 150 men. Patients who required specialist advice or hospitalisation were sent ashore to a military or civil hospital, when the ship put into a port.

*Establishments* . The nursing staff in the two naval establishments consisted of SBAs of varying seniority. They carried out simple

dispensing, gave treatment as instructed by the medical officer and helped to keep the sick bays clean and tidy

As there were no facilities for in-patient treatment, officers and their families were sent to St George's Hospital, Bombay, for further treatment, while ratings were transferred to Military Hospital, Colaba, and civilians of the Dockyard to civil hospitals

#### MEDICAL ORGANISATION DURING WORLD WAR II

On 7 February 1941, the appointment of the PMO, RIN in the rank of surgeon commander was sanctioned. A deputy PMO (DPMO), an assistant PMO (APMO) and a naval staff surgeon were also subsequently appointed. In July 1943, the rank of the PMO was upgraded to that of surgeon captain. On the reorganisation of the RIN Medical Branch in 1945, the post of the APMO was abolished and two staff medical officers (West and East) were created. This facilitated the administration of the establishments on the west and east coasts of India. The staff medical officers were also the medical advisers to the respective Flag Officers. In all matters pertaining to their duties they were directly responsible to the PMO. The post of staff medical officer (East) was abolished on the cessation of hostilities. The appointment of staff medical officer (West), however, continued.

The appointment of a naval health officer was sanctioned in September 1944. He was the adviser to the DPMO and later to the staff medical officer (West) in all matters relating to hygiene and sanitation in the Navy. The post was abolished in 1945 and an appointment of staff officer hygiene at the Naval Headquarters was created in its place.

In December 1945, the number of beds in 'Depot Sick Quarters' was increased from four to fifty. This enabled patients from the Depot and ships in the harbour to be treated in their own sick quarters. The senior medical officer, 'Depot Sick Quarters', was assisted by two or three medical officers.

#### MEDICAL PERSONNEL AND EQUIPMENT OF SHIPS

Each unit of the RIN ashore or afloat, had a sick bay which was usually under the charge of a medical officer. Larger units had more than one medical officer attached to them. The medical officers, in addition to giving medical aid, looked after the sanitation and hygiene of the units in their charge.

Each sloop and frigate of the RIN carried one medical officer. The ships usually had a complement of 210 to 250 officers and men and their duties at sea extended for a period of about three weeks. The medical stores and equipment carried on board included a large range of instruments and medicines to deal with most illnesses and emergencies on board.

The medical officer on board was assisted by two SBAs. The SBA had considerable influence over the rest of the ship's company, who looked upon him with a certain friendly respect. He was, therefore, a great help in organising and helping in conducting lectures and demonstrations and was usually given a chance to take an active part in them. During action, SBAs were in charge of each of the forward, first aid and stretcher parties.

Small ships did not carry any medical officers but each ship had a SBA. He was usually a leading rating and fairly experienced. These ships had varying complements of ratings from 20 for trawlers and motor launches to 50-60 for the Bathurst and Bangor class of ships. They rarely worked as independent units or for any long periods at a time. Usually they worked in the company of large ships or in groups or flotillas of their own class of ships. When operating in flotillas, the flotilla medical officer looked after the health of the ship's company. He usually had his headquarters and sick bay on board the leader, when out on duty or ashore in the base. The equipment in each of the small ships was sufficient to treat common complaints and minor injuries. The medical officer of the flotilla had enough equipment on board to deal with serious injuries. The seriously sick were transferred to a base hospital at the first opportunity. As these small ships were at sea only for short periods the interval between the onset of sickness or the receipt of injury and transfer to a hospital was usually not great.

#### TREATMENT OF SICK ASHORE

As stated above, till the outbreak of war, the available facilities for the treatment of naval personnel ashore in Bombay, consisted of the 'Dockyard Dispensary' and the 'Depot Sick Quarters'. Later sick bays were opened in various ports. The seriously ill or those requiring specialist opinion and treatment were sent to the military or civil hospitals ashore. St. George's Hospital, Bombay, which admitted naval officers during peace time, placed one ward, designated as the Naval Ward on 1 July 1940, at the disposal of the Navy. Usually, medical officers of the Navy, including those of the Royal Navy, helped in running the ward.

#### THE ROYAL INDIAN NAVAL HOSPITAL

The above arrangements resulted in a wide dispersal of sick naval personnel. It was originally proposed to take over the whole of St. George's Hospital for the RIN and the RN but that implied depriving the civilian population of their hospital. The building of the Ramesh Premchand Sanatorium, Sewri, had been completed in 1940, but it had not been equipped nor was it likely to be fully equipped during the war. Sanction of the Government of India to take over this building with the surrounding land and converting it into a RIN hospital with 250 beds was obtained. Fifty beds were



A SICK BAY IN A RIN SHIP

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initially opened and the first patient was admitted in April 1943. By 1944, it had expanded to 250 beds. The hospital was self-contained and had its own radiology and clinical pathology sections. Naval civilian employees were also admitted in an emergency if accommodation was available. The hospital had the following staff —

Medical officer in charge	surgeon commander	1
Honorary specialists	surgeon commander or	9
	surgeon lieutenant commander	(attended the hospital on three mornings a week)
Medical officers	surgeon lieutenant commander	1
	surgeon lieutenants	11
Senior pharmacist	lieutenant	1
Matron		1
Assistant matron		1
Sisters		15
Warrant ward masters		2
SBA's		92

In addition to the above there was also an executive officer responsible for maintaining discipline, guarding hospital property and looking after hospital transport. In 1946, the RIN Hospital in Sewri was closed and a RIN Wing of 120 beds was opened in the Combined Military Hospital (CMH), Colaba.

#### ARRANGEMENTS IN NAVAL ESTABLISHMENTS

Immediately prior to the outbreak of war, each establishment had a sick bay with a few beds. The total number of beds in commission ashore was forty-eight.

During the war more than sixty shore establishments were opened, the majority of them as training establishments and others as administrative depots. These were self-contained units situated far away from the towns on or near the coasts of India extending from Karachi to Chittagong. To provide adequate medical aid in these establishments sick bays were opened. Their size depended on the number of the complement and the location of the establishments. The number of beds in the sick bays varied from four to over a hundred, of medical officers from one to five and of SBAs from four to thirty. The large and well equipped sick bays were quite capable of carrying out almost any kind of surgical and medical treatment. Only such cases as required specialist opinion or treatment were referred to the nearest hospital, usually a military hospital. Patients from the establishments based in and around Bombay area were transferred to the RIN Hospital. The medical officer in charge or the senior medical officer in the establishment was also responsible, in an advisory capacity, for the sanitation and hygiene and maintenance of health of the establishment. Three whole-time dental officers were also appointed for the large independent naval establishments.



The following table gives the overall strength of the RIN and of its medical branch from 1939 to 1946.—

Year	Officers	Ratings	Medical officers	Nursing sisters	SBA's	Ships	Shore establish- ments
1939	198	1,475	11		19	14	10
1940	371	2,849	11		21	14	15
1941	553	3,716	12		26	18	31
1942	875	6,452	12		73	59	31
1943	1,514	12,762	24	10	151	60	40
1944	2,382	21,528	53	20	360	117	40
1945	2,900	25,143	71	20	513	113	61
1946	2,652	23,338	88	17	548	125	47

#### MEDICAL ARRANGEMENTS FOR THE WOMEN'S ROYAL INDIAN NAVAL SERVICE

A naval wing of the WAC(I) was formed on 12 February 1944, and from 2 March 1945, it was named the Women's Royal Indian Naval Service (WRINS). The naval staff surgeon looked after the health of the personnel. They were referred to a woman doctor of the IMS or to a civilian woman practitioner if this was considered desirable. In 1944, a medically qualified woman was commissioned as a medical officer (surgeon lieutenant) for service with the WRINS. Outside Bombay they were attended to by the medical officer of the establishment concerned. Special arrangements in sick bays were made for them.

#### DEMOBILISATION CENTRES

On HMIS *Kakar* (1945) and later (1946) on HMIS *Cheetah* a team of five medical officers and one dental officer carried out medical examination of ratings before release. A similar organisation consisting of two medical officers examined officers due for demobilisation.

#### HYGIENE SERVICE

The majority of the training establishments of the RIN on shore were situated in Bombay and its environs. In order to cope with the sanitary problems which arose in these shore-based establishments a senior sanitary inspector and two to four sanitary inspectors were appointed in the Bombay area in 1942. They were placed under the control of the DPMO, RIN. The role of these sanitary inspectors was purely advisory. They had neither staff working under them nor had they any executive function. The senior sanitary inspector, however, had a gang of 22 labourers for collecting refuse from the training establishments situated in Bombay. The RIN also

employed a fumigation staff at Bombay under a commissioned naval officer for fumigating ships whenever necessary. This worked in close collaboration with the DPMO.

With the progressive expansion of the RIN in 1943, and 1944, and the consequent enlargement of the training establishments on shore, hygiene problems became more complex and the need for a specialist in hygiene who could advise on various health matters began to be felt. Accordingly, in September 1944, the post of naval health officer was created and in view of the urgent health problems near Bombay he was attached to HMIS *Dalhousie* to advise the DPMO. At the same time sanitary inspectors and labourers were recruited at some of the establishments outside Bombay for carrying out the anti malaria work, confined mainly to DDT spraying of living quarters in the establishment and in collections of water.

The duties of a naval health officer were similar to those of the DADH in the Army. He was the adviser to the RIN through the DPMO on all matters affecting the health of personnel. He also advised the PMO at Delhi, whenever required, on any health matters affecting the RIN. He conducted a course of training in hygiene for the commanding and executive officers of the RIN as it was felt that such instruction would be valuable to them in connection with the combined operations in which naval units were to take part. In the earlier months of 1945, it began to be felt that the naval health officer could function more usefully as a hygiene adviser if he was attached to the Naval Headquarters at New Delhi. His designation was consequently changed to staff officer hygiene. The post was abolished on 1 June 1947.

#### RIN MEDICAL STORE ORGANISATION

The RIN depended on the Army for its medical supplies and equipment. The supplies were mostly drawn from the Army Medical Stores Depot, Bombay to which quarterly indents were placed by the various naval units. In case of emergency urgent stores could be drawn as and when required. This arrangement continued up to 1943.

The new ships for the RIN built in the United Kingdom and Australia were stocked with medical supplies sufficient for about a year before despatch to India. After the RIN Hospital was opened in 1943, and a senior pharmacist was appointed, stores were drawn in bulk by the pharmacist and distributed to the ships and medical establishments. In August 1943, the scale of medical equipment was revised. The new equipment was based on the RN scales. Such articles as were not available from Army sources were obtained by local purchase.

In June 1944, No. 49 Indian Sub-Depot Medical Stores was loaned to the RIN. This unit was located in the same compound as the RIN Hospital. The senior pharmacist continued to place demands on this sub depot for all medical units of the RIN. The Landing Craft Wing necessitated the provision of special equipment

and packing. Sixty specially constructed and equipped boxes were made by the sub-depot for this purpose.

In May 1945, the building and staff for the RIN medical store were sanctioned. The pharmacist (lieutenant) with his staff took over complete charge of the medical stores which were housed in a temporary building and the construction of a permanent building was started. But this had not been completed when the war ended.

#### DOCKYARD WORKERS' FAMILIES WELFARE CLINIC

A well-equipped clinic for the welfare of the families of dockyard workers was opened in Bombay in June 1944. The clinic was initially financed from the Dockyard welfare funds and later from the naval estimates. A whole-time qualified woman doctor was placed in charge. Cases requiring hospital treatment and maternity cases were admitted to this clinic. A small creche for babies was also available. The clinic provided other amenities in the form of classes in sewing and machine work. At first the attendance was meagre but soon grew appreciably. The maternity wards were invariably full and the ante-natal and post-natal clinics constantly busy. All laboratory investigations and X-ray examinations were carried out at the RIN Hospital. Cases requiring surgical treatment were referred to the civil hospitals. The amount of work done at the clinic can be estimated from the following statement of the cases who attended the clinic during August 1944—January 1945.<sup>1</sup>

	August 1944	Septem- ber	Octo- ber	Novem- ber	Decem- ber	January 1945
Infants	50	178	117	180	221	235
Toddlers	97	329	282	478	424	477
Adults	420	721	819	1,053	1,282	1,107
Ante-natal	50	160	178	194	132	165
Post-natal	15	17	12	23	36	109
Total	632	1,405	1,408	1,928	2,095	2,093

#### RECRUITMENT

The rapidly increasing number of recruits put a great strain on the limited staff of medical officers available. From 1 December 1941, army or civilian recruiting medical officers, working under the combined Recruiting Directorate, commenced the examination of personnel for employment in the Navy. Naval officers were usually present during the selection of naval personnel. The 'medical filtration' was carried out in three stages. The recruiting medical officer (RMO) examined the candidates at the initial selection. The

<sup>1</sup>H/5/33/H(M)

selected recruits were then sent to the Recruits Reception Camps (RRCs). Here the commanding officer of the camp or an officer appointed by him (preferably a naval officer if available) inspected the recruits. Any one obviously below the required physical standard was referred to the nearest RMO who sent his report to the Commanding Officer RIN Depot, Bombay. All recruits on arrival at the depot were again given a thorough medical examination and those found unfit were recommended for rejection.

*Recruitment of Medical Officers* The Indian Army in the beginning agreed to supply the requisite number of assistant surgeons IMD(BC) for the RIN. But this scheme was soon found to be unsatisfactory. From the latter half of 1942 emergency commissioned officers of the IMS were seconded to the Navy. This arrangement also was discontinued after a year. In 1943, DGIMS approached the Government of India and obtained sanction for recruiting IMS officers for immediate secondment to the RIN. In addition to direct recruitment suitable IMS and later IAMC officers continued to be selected for secondment to the RIN.

#### ROYAL INDIAN NAVY VOLUNTEER RESERVE

In 1944, a medical branch of the Royal Indian Navy Volunteer Reserve (RINVR) was formed consisting of officers of the IMS(EC) and IAMC who had been seconded to the RIN. Officers on secondment were on probation for one year, and if found suitable were granted temporary commissions in the RINVR. Regular IMS officers continued to be granted commissions in the RIN.

#### RANK, PAY, PROMOTION, UNIFORM, DISCIPLINE

Naval medical officers were given the ranks equivalent to which they were entitled in the IMS/IAMC. Their rates of pay and their promotion were also similar to the IMS/IAMC except that the naval medical officers received an additional allowance of Rs 50 per month when in medical charge of a ship. They also received Rs 2 per day as messing allowance and paid 5 per cent of their pay for rent, as did all other officers in the Navy. They were required to wear the uniform of the RIN or RINVR with a distinctive scarlet band in their badges of rank and were subject to the RIN Discipline Act.

#### SPECIALISTS

The system of appointing specialists or graded specialists in the various branches of medicine did not exist in the RIN. To provide expert opinion and treatment the RIN appointed nine specialists from amongst the leading specialists in Bombay. They were given honorary naval ranks and were attached to the RIN Hospital.

## THE TRAINING MEDICAL OFFICERS

Medical officers before secondment to the Navy had generally completed three months training at the Army Medical Training Centre (AMTC), Poona. Medical officers recruited directly were given a divisional course of four weeks at HMIS *Feroze*. This course was intended for officers of all branches of the RIN and consisted of lectures in naval rules, regulations, law and discipline. There were no other courses for medical officers in the Navy. To begin with, the Army specialist courses were not open to RIN medical officers. In November 1943, however, one medical officer at a time was allowed to attend the Army courses of instruction in malaria at the Malaria Institute of India and the courses in venereal diseases at the British Military Hospital (BMH), Bangalore. Five naval medical officers attended these courses.

## NURSING SISTERS

There were no nursing sisters in the RIN until a naval hospital was opened in Bombay in 1943. Seven nursing officers were then enlisted. Two years later their number had risen to seventeen. They were recruited directly by the medical officer-in-charge, RIN Hospital from civilian qualified nurses. Their pay and terms of service were similar to those of the Indian Military Nursing Service (IMNS(T)), but differed from the latter in that they were not commissioned nursing officers

## SBAS

SBAs were recruited directly for this branch. The minimum qualifying standards for enlistment in the beginning were as follows :—

Education	Matriculation
Height	5'—2"
Weight	105 lbs.
Chest	31"
Vision	6/6 both eyes

The pay fixed for the SBA was low, *viz.*, Rs. 25-1-30 per month.<sup>2</sup> Consequently the response of volunteers for this branch was poor. In 1943, the educational qualification was reduced to 8th class or 6th standard in English and the physical standards were also modified as under .—

Age	17-22 years
Height	5 feet
Weight	94 lbs
Chest	29"
Vision	Corrected with glass 6/12 both eyes

<sup>2</sup>P & A Regs for the RIN.

The pay was later increased to Rs 50-55-57 per month<sup>3</sup> and this produced the desired results

#### THE TRAINING OF SBAS

At the beginning of the war SBAs were trained at the depot sick bay, where they learnt the rudiments of anatomy, physiology, first aid and nursing. They were attached to the Military Hospital, Colaba for a period of some six months to get practical training in ward work and general nursing. Later in 1943, a SBA Training Establishment was opened in Bombay. It was first housed in the gymnasium hall in Castle Barracks where instruction and demonstrations were given. Later it was moved to the RIN Hospital. It was under the supervision of a surgeon lieutenant. A programme of training was so arranged as to give a good grounding in elementary anatomy, physiology, first aid and general sick nursing. A recruit for this branch on first entry did a course of training at HMIS *Albar* in common with other new entrants to the Navy. There he attended a course in sea rescue, boat work, general naval discipline, and naval customs. He was then transferred to the SBA Training Establishment in the grade of SBA II. After attending lectures and demonstrations for two months in the class rooms, he was sent to the wards for another month's practical experience in ward work and nursing. After completing three months of training in the training establishment and on passing the examination, he was promoted to SBA I and was drafted to a shore establishment. As a general rule, he was employed for six months on shore, before being appointed to a ship afloat. The number of the new entrants each quarter was about sixty ratings. Apart from the initial training, practical training and courses for the higher 'rates' were also instituted. On completing the required minimum of time in one 'rate' the SBAs could sit for their qualifying examination for the next higher 'rate'. They were also attached to the training establishment to attend refresher courses to prepare them for their examinations especially in the case of those sitting for the SBA petty officer and chief petty officer 'rates'. These classes proved popular as they were useful and helped both the candidates and the service by maintaining a uniform and high standard of efficiency.

Training, both theoretical and practical, was also given in special subjects. These were for such appointments as clinical side room and operating room attendants, X-ray assistant and dispenser. On successfully completing the courses in these special subjects they were eligible to draw a special allowance.

#### NAVAL MEDICAL SERVICES DURING ACTION

The RIN operated in almost all of the theatres of war extending from the Atlantic in the west to the Java Sea and the Pacific Ocean

<sup>3</sup>RIN (I) 269/1944

in the east. During the first twelve months of the war three RIN sloops were attached to the RN and were engaged in convoy escort duties and general anti-submarine patrols in the Persian Gulf, Aden, Red Sea area and across the Indian Ocean. In 1941 HMIS *Sutlej* and HMIS *Jumna*, the two vessels which had earlier taken part in the convoy escort duties in the Atlantic and in the chase and sinking of the German battle ship *Bismarck*, were sent to the Red Sea. The *Clive*, the *Hindustan*, the *Indus*, the *Netravati*, the *Parvati*, and the *Ratnagiri* helped to expel the Italian forces from East Africa and to clear the minefields in the ports of Massawa, Berbera and Assab. The *Investigator*, the *Lawrence* and the *Lilavati* took part in seizing Axis merchant ships which had been immobilised in the Persian ports of Abadan, Bandar Abbas and Bandar Shahpur by the Allied blockade. During 1942, HMIS *Jumna* and HMIS *Sutlej*, while escorting convoys between Batavia and Singapore, helped to destroy a number of Japanese bombers. The two ships took part in the battle of the Java Sea. The *Sutlej* picked up a large number of survivors. The *Hindustan*, the *Haider*, the *Ratnagiri* and the *Sutlej* operated on the Burma coast during the Japanese invasion. HMIS *Bengal* while on her maiden voyage from Australia to India attacked and sank one heavily armed surface raider and damaged another. All the casualties from these ships were landed in Singapore.

In March and April 1942, the RIN assisted in the evacuation of refugees from Burma. The fall of Singapore and later the occupation of Burma enabled the Japanese fleet to enter the Indian Ocean. On 6 April 1942, Vizagapatam and Coconada on the east coast of India were bombed and a Japanese naval force destroyed twenty-five merchant ships (with a total tonnage of 121,460 tons) in the Bay of Bengal. By 13 April 1942, three Japanese battle ships, five aircraft carriers and a number of cruisers and destroyers were operating in the Bay of Bengal. The RIN was thus kept continuously busy guarding the coastal defences. In May 1942, the foundation of the RIN Coastal Force was laid. The RIN during 1943, continued to be engaged in ocean escort duties and local naval defence. Motor launches of the newly formed coastal force supported the Allied forces in Arakan by attacking Japanese coastal lines of communication. HMIS *Konkan* and HMIS *Kathiawar* while on their way to India from Britain escorted convoys to Tunisia. HMISs *Jumna* and *Sutlej* operated with the Mediterranean Fleet. They escorted invasion and follow-up convoys to Sicily and carried out 'D' day anti-submarine patrols off the assault beaches and later helped to beat off a German night bomber attack on the *Augustus*. Throughout 1944 the RIN carried out escort duties for convoys to and from Aden, the Persian Gulf and for Indian coastal convoys. Their units were also attached to anti-submarine striking forces of the East Indies Fleet operating in the Indian Ocean and the Bay of Bengal. During these operations HMIS *Godavari* and HMIS *Findbon* destroyed a large German 'U' boat near Scychelles. HMIS *Jumna* took part in the destruction of another 'U' boat.

Coastal Force motor launches resumed operations in October 1944, on the Arakan coast in support of the Fourteenth Army. Early in 1945, between January and April, RIN sloops, escort vessels, Fairmile motor launches, Harbour Defence motor launches, and landing craft operated on the Arakan coast and took part in the capture of Akyab, Kyaukpyu and Cheduba and were engaged in the assaults on Kangaw, Ruywa and Latpan. They were also engaged in Kaladan and Ramree blockade operations in support of the Army. The *Narbada*, the *Jumna*, the *Cauvery* and the *Kistna* supported the XV Indian Corps operations which cleared the Japanese from the Arakan.

Later the 37th RIN Mine Sweeping Flotilla swept the sea for the assault convoy into Rangoon. Two sloops formed part of the escort of this convoy. After the capture of Rangoon sloops and escort vessels maintained patrols in the Tenasserin and Tavoy areas. The RIN also took part in the reoccupation of Malaya and the Dutch East Indies and in relief operations carrying medical parties, medical supplies and escorting 'Mercy ships'. HMIS *Lranstephan Castle* carried the 3rd Commando Brigade to Hongkong and the *Cauvery* and the *Godavary* joined the British Pacific Fleet for escort duties and anti-piracy patrols on the China coast and later for duties in Japan.

Thus in almost all parts of the world the RIN operated with the RN and Allied fleets. RIN ships carried medical officers and kept sick bays well stocked with drugs and equipment. Medical equipment and stretchers were distributed among different compartments of the ship. Sick bays and ratings mess decks were provided with extra hooks for accommodating additional hammocks. The officers ward room lobby and flats were also available for the accommodation of casualties in an emergency. The medical officer on board was also prepared to establish temporary bases ashore for landing parties. He, therefore, kept a valise or packing case fitted with medical equipment and drugs required ashore to treat minor sick or injured.

Smaller ships, not carrying a medical officer on board, had a leading SBA, who organised the dispersal and distribution of first aid kit. The decision to detain a patient on board was not governed by the facilities available for treatment but by the patient's ability to escape from the ship in case of its sinking or being abandoned. Any one who might not be able to escape in case of an emergency had to be evacuated to the nearest port as soon as opportunity for evacuation occurred. This category, in practice, came to include almost all the sick and wounded. In all ports the naval authorities had appointed a base medical officer. The ships were required to signal the details of patients due for transfer ashore to the base medical officer. On receipt of this information, he arranged transport from ship to shore and from shore to a hospital.

#### LANDING CRAFT WING

Each craft of the Landing Craft Wing had medical stores consisting of first aid boxes containing first aid kit, mepacrine tablets,



mosquito repellents and multivite tablets. Each flotilla was made up of eight to ten craft and operated in a group of flotillas. Each flotilla had two SBAs attached to it. A medical officer with medical supplies for a sick bay accompanied each group. At the base, when the Landing Craft Force was concentrating, the base sick bay was opened jointly by the naval medical officers of the Landing Craft Groups. In the Chittagong area, which was a naval base, there was a large sick bay in Patunga to which all the cases from the Landing Craft Camp were sent. Patients requiring hospital treatment were transferred to the Army hospital No. 68 Indian General Hospital (Combined) IGH (C). All the forces including the advanced forces and the Landing Craft Wing were eventually congregated at Teknaf where a large combined RIN and RN base was established. A combined sick bay was opened under the RN and consisted of a RIN section.

The RIN Landing Craft Force was later regrouped again into four squadrons each with a medical officer. One medical officer was attached to the headquarters to carry out duties at the base. The function of the squadron medical officer was to be with the squadron when it went out on operations. Usually the squadron moved to an advanced base and operated with Army units. After the Japanese had been pushed back, the Landing Craft Force moved forward and established for itself another base. It was at these bases that the squadrons had a chance to rest and the medical officer usually set up a sick bay to tend the sick and the wounded. Serious sick and wounded in these forward areas, after being treated, were evacuated to a main base behind the forward lines.

For the first major operation in Akyab the RIN medical party opened two Landing Craft Wings as casualty collecting bases. The casualties were brought back by returning landing craft which had taken assault parties ashore. The landing in Akyab was unopposed. An advanced landing craft base was set up north of the town of Akyab. Because Akyab was the base and the headquarters of the Landing Craft Wing, it was decided to open up a fifty-bedded sick bay there. Stores and equipment for a 100-bedded hospital had arrived from Chittagong. Arrangements had been made for these to be made available to the RIN on demand. This material was used to open the sick bay and also to furnish medical stores and equipment to the squadron medical officers for their sick bays in the forward areas. The base sick bay was under the control of the senior medical officer. The Landing Craft Force in Burma remained there till the end of the campaign. The senior medical officer was assisted by such medical officers as happened to return to the base from operations. This sick bay looked after all the RIN, RN and Royal Marine personnel forming the Landing Craft Wing. Casualties came from ships or landing craft returning to the base and from those undergoing refit and rest. The sick bay in Akyab also functioned as an evacuation base and as a centre where casualties were classified according to their medical needs. Evacuation was either by road to Chittagong or by sea or

ur to Calcutta and further back. Those who were not evacuated farther than Calcutta were despatched to their units through HMIS *Hooghly* at Calcutta and HMIS *Patunga* at Chittagong. If evacuated beyond Calcutta, the naval patients were eventually discharged to the RIN Depot, Bombay or to HMIS *Hamla* at Marve.

The Japanese withdrew from Akyab without offering much opposition but reports received indicated that they intended to remain in Arakan. They were concentrating further east to protect their lines of communication which ran from Taungup in the south northward to Prome. It was to disrupt this line and to seal up the Japanese in small 'boxes' that coastal operations were planned.

East of Akyab a very important Japanese base was the small locality of the Mybon Peninsula. Preparations were made for an assault on Mybon. In the early hours of 12 January 1945, the combined naval, land and air forces launched an attack. The naval medical arrangements were as follows. The 'medical assault party' had depots on landing craft infantry (LCIs) and arranged to take casualties in their troop decks. The serious and surgical cases were diverted to the *Narbada* where the principal mobile surgical team was established. The minor landing crafts (LCMs) evacuated casualties from the shore and brought them to the LCI and to the *Narbada*. Urgent cases were transferred direct to HMIS *Narbada* where resuscitation and immediate surgical attention was given. Other cases were transferred to the LCIs and LCMs which transported them to the hospital ship lying in Hunter Bay. The hospital ship functioned as a static hospital. The Army had a main dressing station (MDS), functioning ashore on 13 January. The surgical team from the *Narbada* went ashore on 15 January and functioned there. Evacuation and further medical aid were through Army channels.

For landing in Kangaw the medical arrangements were more or less similar. One naval medical officer went ashore with the brigade commander to establish a first aid post for the Army camp and to open a MDS there. The sorting of casualties was difficult on the beach, hence all cases were sent to the *Narbada* where the medical officers classified them. The very urgent cases were detained on board and others after first aid were sent on minesweepers to Mybon where they were transferred to the hospital ships or sent ashore in LCMs to the field ambulances functioning near the old assault beach at Mybon.

These medical arrangements were adopted in other operations and landings such as those at Ruywa, Kyaukpyu, Ramree, Cheduba and Letpan. In actions of a comparatively minor nature there was usually a squadron medical officer with the operational flotillas of the squadron in one of the landing craft in which he opened a first aid post. The medical officers went ashore at the earliest opportunity. Medical officers of the RIN worked in close collaboration with those of the RN and the Army and carried out their duties as members of an integrated team.<sup>4</sup>

<sup>4</sup> H/5/5/H(M). See also Volume on Campaigns in the Eastern Theatre.

## CHAPTER IV

# The Medical Services of the Royal Indian Air Force

Prior to the outbreak of World War II the air forces in India consisted of the Royal Air Force and the Indian Air Force (IAF). The IAF volunteer reserve, containing both regular and volunteer elements, had also been formed to assist in the defence of major ports in India. From an air force of one incomplete squadron without any training establishments for its personnel in 1939, the IAF had expanded to a force of ten squadrons by December 1946. On 12 March 1945, the IAF became the Royal Indian Air Force (RIAF). Of the ten squadrons in the Burma theatre of operations, as many as seven to nine squadrons operated at any one time.

In accordance with a contract entered into with the Air Ministry in London the air force in India depended on the Indian Army for the provision of all medical personnel other than the RAF medical officers and nursing orderlies, the Army medical officers being seconded to the IAF squadrons. Medical stores and equipment were also provided by the Army. The air force sick and wounded were treated in military hospitals. This was the most economical method of providing medical cover for the relatively small air force personnel. But later, owing to the rapid expansion of the IAF, the medical cover had to be increased and special training arrangements had to be made.

### ORGANISATION

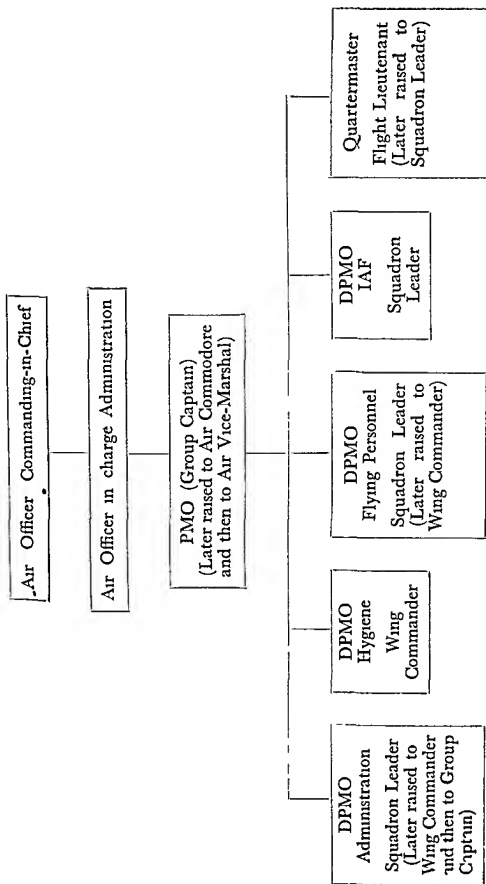
The medical services of the air force in India were administered by a PMO assisted by five officers. The PMO was directly responsible to the Air Officer in charge of administration. The organisation of the service was as shown in the opposite chart.

### THE EXPANSION OF THE MEDICAL SERVICES

The nucleus of the IAF medical branch was formed early in 1941 with 3 officers and 6 nursing orderlies (later called medical assistants). Thereafter the medical branch increased slowly to 45 officers and 200 medical assistants in 1945.

#### *Medical Establishment of the IAF*

<i>Year</i>		<i>Medical officers</i>	<i>Medical assistants</i>
1939	..	..	..
1940	..		
1941	.	6	6
1942	..	19	14
1943	.	45	79
1944	.	46	126
1945	. ..	45	200



Organisation of Medical Services Royal Indian Air Force

After the completion of hospital training the candidates appeared before the 'Trade Test Board' for final assessment of their suitability for the trade. Successful airmen obtaining 50 per cent. marks in each subject were remustered to the trade as air craft men (AC2) nursing orderlies and posted to various stations for further practical experience and training given by individual medical officers.

Up to 1944, many difficulties existed regarding trade testing, promotion and standardisation of training of the Group 'M' personnel. The need for a detailed trade testing policy was great. In 1943, trade tests for mustering were being carried out by the Senior Medical Officer, No. 4 Hill Depot, Chakrata, but were not entirely satisfactory. The reclassifications were carried out by the trade test boards arranged by the group senior medical officers and it was clear that the standards varied. Later in 1944, all trade tests for remustering were carried out under arrangements made by the PMO directly with the Medical Training Centre. The trade test boards were invariably presided over by the DPMO, Base Air Forces, South East Asia. The question of standardising trade for reclassification proved more difficult owing to frequent changes in the staff of the Group Headquarters. The distances involved further prevented the formation of a central trade testing board. Therefore to ensure uniformity a detailed syllabus was issued to all the medical officers in the form of a medical administrative instruction.

The syllabus of training was elaborated for theoretical and practical training and a booklet was issued under the title of *Notes for the Guidance of Instructors—Medical Training Centre*. Tutorial classes and special coaching for the backward members of the class were also introduced. Examinations at the end of each week and at the end of each phase were held regularly and proper records for individual trainees were maintained.

#### MEDICAL ARRANGEMENTS FOR THE IAF<sup>3</sup>

It was considered necessary at the beginning of 1943, to establish station sick quarters at those units which had a large number of IAF personnel. Beds were provided on a 2 per cent. basis at Walton, Jalahali, Secunderabad and Andheri. At the RAF airfields and other mixed units, the existing sick quarters were utilised for this purpose. It thus became possible for airmen to be treated by their own unit medical organisation. The medical officer could admit any case which he thought could be treated by him with the facilities available in the station sick quarters and for any length of time. Equipment, however, proved a limiting factor.

#### MEDICAL ARRANGEMENTS FOR CIVILIAN PERSONNEL AND THEIR FAMILIES

Air Headquarters had laid down in 1936, that civilian personnel employed in various RAF units and formations were entitled to free

<sup>3</sup> For details of hospital arrangements for the IAF see page 322

medical attendance ordinarily at their quarters, and in cases of serious illness or injury admission to a military hospital was permitted, if accommodation was available and the medical attendant recommended it

As the pre-war RAF strength was small this procedure did not involve much difficulty, but with the increase in the strength of the air force in India during the war, large numbers of civilian personnel were of necessity, employed in the air force stations and units. Medical aid for them, under the existing rules became almost impossible. Hence the question of medical attendance for these personnel was taken up in April 1944. Medical attendance and treatment were then authorised for the following categories of civilian personnel —

- (i) CGOs
- (ii) Non gazetted civilians
- (iii) Civilian mechanical transport (MT) drivers
- (iv) Private servants

A large number of civilians, however, who were employed at maintenance units did not fall into any one of these categories and were classed as 'casual' personnel (those not employed against establishment). For instance, 720 such personnel were employed at No 302 Maintenance Unit in 1944.

It was decided in November 1944, that when a substantial number of temporary and casual civilian personnel, other than those employed by the Military Engineering Service and Public Works Department and contractor's labourers, were employed at air force stations, the following procedure was to be adopted. When the air force medical staff was insufficient to cater for the needs of civilians entitled to treatment at the air force medical inspection rooms or at their quarters, as applicable, the senior medical officers of the groups were to put up proposals to the PMO Base Air Forces, South East Asia, for the local employment of a civilian registered practitioner and a qualified compounder, salaries being arranged according to local conditions. The prior sanction of Headquarters RAF, South East Asia, was necessary in each case. The civilian medical practitioner and the compounder were placed under the control of the senior medical officer of the station.

#### DENTAL TREATMENT†

Before the war Indian other ranks (IORs) of the IAF as well as of the Army had no dental organisation to cater primarily to their needs. Routine dental treatment was given by the staff of the Indian military hospitals (IMHs) and only difficult or complicated cases were referred to the Army dental centres, which were primarily established for the dental care of British personnel serving in India. Nor were they entitled to any specialised dental treatment such as provision of

† See page 58

dentures. During World War II other ranks of the fighting services became entitled to dental treatment at the Indian dental centres.

In May 1943, the inspecting dental officer of the RAF suggested the secondment of officers and men of the IADC to the IAF on the same lines as for the medical branch of the IAF. IADC officers were available for secondment. There was, however, an acute shortage of dental clerk orderlies. The requirements for Indian dental units were met, at the time, by employing clerks and nursing sepoy of the IAMC after they were trained in dental duties. It was, therefore, suggested that complete Indian dental units (Indian troops) for the IAF should be raised. Reinforcements or reliefs of personnel to these units could be provided by the Army whenever required. On 3 November 1944, orders were issued by GHQ for the raising of five dental units (Nos. 82, 83, 84, 85 and 86 Indian Dental Units) in Poona. These started functioning in April 1945 and were distributed by Headquarters Air Command as follows :—

No. 82 Indian Dental Unit	to No 322 Maintenance Unit, Kanpur.
No. 83 Indian Dental Unit	to Non-Technical Training Centre, RAF, Secunderabad.
No. 84 Indian Dental Unit	to No. 1 RTC, Lahore, and later to No. 10 School of Technical Training, Hakimpet.
No. 85 Indian Dental Unit	to RAF, Ambala.
No. 86 Indian Dental Unit	to No. 2 RTC, Jalahali.

#### MEDICAL BOARDS AND INVALIDMENT

In 1941 arrangements for conducting medical boards were standardised. These boards were held at the Air Headquarters Air Landing School, New Delhi, and RAF Stations, Ambala, Calcutta, Karachi and Peshawar. All examinations for final assessment of fitness for flying were, however, held at the well-equipped Central Medical Board located at Lahore. In addition, towards the end of the year, a Travelling Medical Board was constituted consisting of the following personnel .—

Squadron leader RAF	President
Flight lieutenant IAF	Ophthalmic specialist
Captain, IMS	ENT specialist

One corporal nursing orderly RAF accompanied the Travelling Medical Board. The board was formed at Lahore, its permanent base, in December 1941, and commenced work in January 1942, in conjunction with the Central Interview Board under the combined recruiting scheme for the three services. The Travelling Medical Board was originally formed to deal with candidates presenting themselves for commission in the IAF. The limited number of such candidates rendered the arrangements very uneconomical. During the

ten months, from the board's inception in December 1941, to October 1942, only 411 candidates were examined. The Directorate of Recruiting, however, was anxious that the travelling board of examiners should not be disbanded, for recruitment was likely to suffer if candidates were required to travel long distances for their examination. However, in view of the shortage of medical personnel in India it was later agreed to disband the Travelling Medical Board.

With the increasing expansion of the air force, the number of medical boards steadily multiplied. It was considered that No. 1 Central Medical Board, Lahore, was not centrally situated. In addition, the building occupied was not altogether satisfactory for the purpose. A more suitable medical board building was built at Delhi under high priority. The existing establishment of the board was also supplemented, and it opened at Delhi on 27 July 1942.

Military Hospitals at Poona and Deolali were specially selected to receive casualties evacuated to India from overseas. Casualties arriving in Calcutta and Madras were transferred, when fit to travel, to these hospitals. These developments necessitated the formation of No. 2 Central Medical Board at Poona which opened on 21 September 1942. It was later moved to Calcutta and was redesignated No. 11 Central Medical Board, while the one at Delhi became No. 10 Central Medical Board. Following the reorganisation of medical administration on group basis, in 1943, groups and wings, and sometimes stations, were authorised to conduct ordinary medical boards.

By 1944, medical boards were also convened at Headquarters No. 222 Group in Ceylon (which was granted the status of a Central Medical Board), and headquarters of commands, groups and those wings at which medical officers of the rank of squadron leader or above were available to act as presidents. The Army hospitals and RAF general and mobile field hospitals continued to conduct medical boards for air force patients whenever the necessity arose.<sup>5</sup>



## CHAPTER V

# The Indian Army Dental Corps

Before and during the early years of World War II, the dental service in India catered for British troops only, and was manned by the officers of the ADC. Indian soldiers had to depend upon whatever assistance could be provided by medical officers in IMHs.

The total strength of the ADC officers in India was twenty-eight.<sup>1</sup> One senior dental officer, as administrative head, was posted at the Medical Directorate. The remaining officers were in charge of military dental centres.

Considerable manpower wastage due to dental ailments raised the question of providing regular dental service to the Indian troops. Engagement of dentists in a civilian capacity on special rates of pay or on contract was possible, but civilian dentists could not be sent overseas for duty in the field. The other alternatives were to create an Indian dental service, or to grant emergency commissions in the Indian Army to suitable civilian dentists, or to grant dentists emergency commissions in the IMS. The last proposal was ultimately adopted and a separate dental branch of the IMS(EC), the IMS Dental (D) was set up for this purpose. The terms and conditions of service for this branch were sanctioned by the Government of India in November 1940.

In the first instance, the Government of India sanctioned the recruitment of twelve dentists. Their number was subsequently raised to 131.

Recruitment in IMS(D) was confined only to those who possessed qualifications obtained from DeMontmorency College of Dentistry, Lahore, Dental College and Hospital, Calcutta, Nair Hospital and Dental College, Bombay, and institutions whose qualifications were registrable at the Dental Board in the United Kingdom.

The rules and regulations for the IMS(EC) also applied to IMS (D). From its very inception the IMS(D) strove hard and succeeded in reducing considerably the manpower wastage both in peace stations and field areas. Army dental centres and mobile dental units, under the charge of fully qualified dental officers, were employed as far forward in the field as MDSs of field ambulances. It soon became necessary to form a separate corps of dental officers. In 1943, the Indian Army Dental Corps was formed,<sup>2</sup> and all dental officers of the IMS(D) were either transferred or seconded to it. The other rank element of the IADC was found from the IAMC. This was not a wholly satisfactory arrangement. It was therefore proposed that the future set-up of the IADC should include other

<sup>1</sup> Strength return of the Indian Defence Services 1 October 1939

<sup>2</sup> Sec VI (I) 115/1943 as amended from time to time.

ranks as well, and that records of these personnel should continue to be incorporated at the IAMC Records and Depot Centre. But due to the unavoidable circumstances this arrangement could not materialise until 1946.

It was originally suggested that the executive ceiling cover of IADC officers for Indian troops should be in the ratio of one to 5,000 troops, with some additional provision for administration, leave and sick reserve. The higher ratio of 1 dental officer to 4,000 soldiers was, however, accepted and this included leave and sick reserves and personnel for administration. It was further proposed, and since then it has been accepted, that the proportion of one dental officer to 4,000 troops must be dependent on allotment, for employment with IADC officers, of other ranks specially trained in dental duties.

It was considered unlikely that a general demand to provide artificial dentures for men could be made during their early years of service. The necessity of preparing special dental appliances for the treatment of injuries and wounds of the face and jaw, and the prevalence of pyorrhœa and consequent loss of teeth amongst men retained on long service engagements were also considered. It was decided that the dental mechanic units and laboratories should be manned by ADC mechanics until IADC mechanics had been trained and made available for duty.

#### DENTAL UNITS

Before World War II, the authorised military dental units and centres for British troops in the India Command numbered 21. These dental centres were required to provide free dental treatment to the British troops in the area. Most of the time of the dental officers was, therefore, spent in touring their respective areas. In 1940, subsequent to the development of the India Command as a training ground for troops a dental centre was located in each district. These centres were established in stations with relatively large garrisons. If necessary, the dental surgeon could visit the nearby units. In addition to the already existing British military dental centres, eight centres for Indian troops were also opened one each in the IMHs at Razmak, Rawalpindi, Lahore, Poona, Lucknow, Secunderabad, Karachi and Quetta.

The establishment required for each of the above centres included one qualified Indian dental surgeon, one clerk IHC, one ward servant IHC and one sweeper IHC.

The British military dental centres at Poona, Lucknow and Rawalpindi were designed and equipped for training purposes and were staffed by experienced dental surgeons. Difficult cases for opinion and for major operations were referred to these centres. The lack of dental specialists, however, prevented these centres from treating all advanced and complicated cases.

In order to avoid loss of manpower, due to the evacuation of cases suffering from dental diseases from overseas, a similar provision

was necessary for the forces overseas. One Indian dental unit was, therefore, allotted to every group of two general hospitals. In the initial stages four such dental units were sent abroad.

As the war progressed, dental commitments kept on increasing, and a large number of dental units were established both for Indian and British troops. By August 1945, by which time the maximum number of units had been raised, there were eighty-four Indian dental units and twenty-nine Indian dental mechanic units.

#### ADMINISTRATION

During World War II, the administration of dental centres in the India Command was carried out by the senior officer of the ADC designated as DDDS. He was responsible to the Director Dental Service, War Office, for the dental service as a whole. For the purpose of local administration of the dental service in India he was directly responsible to the DMS in India.

In view of the heavy commitments, it was not possible for the DDDS to supervise personally the work of all the dental officers. By the end of 1942, it was, therefore, decided to appoint an ADDS to each command. These ADsDS were responsible for the dental requirements of the stations in their respective commands.

In addition to the provision of adequate dental cover for the Army, the IADC and the ADC looked after the naval and air forces. By May 1941, as the commitment for the ADC had considerably increased, the Air Ministry was requested to make arrangements for dental care of RAF personnel. This was agreed to and an original establishment authorised by the Government of India provided for one dental officer in the rank of wing commander for the RAF. It was impossible for one officer to look after all the units. In 1943, the post of a dental officer at Calcutta was, therefore, sanctioned and, later, five dental officers were appointed, one to each group. The RIAF personnel, however, remained the responsibility of the IADC and five Indian dental units were detailed exclusively for RIAF personnel. They were located at Kanpur, Secunderabad, Lahore, Ambala and Jalalah. Similar arrangements were made for RIN personnel. Three dental officers, who were seconded to the RIN, were required to provide dental cover for this service

#### TRAINING

*Officers* · The training of ADC officers was carried out in the United Kingdom, and they were sent to the India Command for posting direct to the military dental centres for British troops. The IADC officers were posted to the medical training establishments for about four weeks' preliminary course of instruction along with the newly-joined IMS(EC) officers. Instruction on purely dental technical administration was given at the dental centres in Rawalpindi, Poona, Lucknow and Ranchi. Each course was attended by about three to

six dental officers The intake had increased to eight dental officers per course by 1942 Invariably, after the completion of the course, officers were posted for duty to a 'double-chair' dental centre for a period varying between three to six months They were then posted as officers in charge, military dental centres The posting of newly-joined officers to the centres selected for training increased the working capacity of the centres and provided time for extra instruction to be given by the senior dental officer and his staff

*Other Ranks* Three categories of other ranks were required for the IADC, viz clerks, nursing orderlies and non combatants (enrolled) (NCs)(E) There was one nursing orderly per dental officer and one clerk and one sweeper per dental centre or unit They were found from the IHC/IAMC The first two categories of other ranks, after being trained at the IHC/IAMC training centres, were transferred to the selected dental centres for training for a period of eight to twelve weeks After completion of the course they were trade-tested and if found suitable were posted to dental centres or units for duty

#### DENTAL STORES

Owing to the rapid expansion of the dental centres and units for British troops during 1939-41, there was a serious shortage of dental equipment Until sufficient equipment could be obtained, the complement of officers at certain dental centres and units had to be increased beyond the authorised establishments The dental officers then worked in shifts This resulted in the extended use of each surgery, but no officer was able to work for the whole day With the formation of dental centres and units for Indian troops in India the situation became serious Almost all the dental equipment required in India was of foreign manufacture The equipping of dental units in India, therefore, was largely dependent upon the supply from the United Kingdom, but their resources were also limited

By 1943, a number of locally made dental instruments were obtained and supplied to the newly-formed centres and units These were usually found to be of poor quality In 1945, the position steadily improved The short supply of contra angle hand pieces, however, remained a serious problem for the whole of the dental profession Manufacturers could not supply the article in large numbers or guarantee that those supplied would stand up to service use Repair to hand pieces, except of a minor nature, was not possible in India

New dental equipment was added to the existing scales from time to time, such as an outfit for maxillo facial injuries The dental equipment included dental surgery, anaesthetic and laboratory equipment, maxillo facial unit equipment, and field dental surgery and field mechanical outfits Dental bone operating instruments were also supplied to the dental centres and units

The dental equipment for static dental centres in India was based on that of the dental centres in the United Kingdom and equipment for field dental units was based on the ADC field equipment scale.

The field dental outfit consisted of a number of wicker and canvas panniers and wooden boxes. These were found unsuitable in a hot and humid climate with the result that a lot of equipment became unserviceable after some time.<sup>3</sup>

<sup>3</sup> H/6/20/H(M).

## CHAPTER VI

# The Military Nursing Services<sup>1</sup> and WAC(1) in the Medical Services

The number of nurses at the disposal of the military authorities was totally insufficient to meet the large demands which a war of great magnitude naturally involved. The sanctioned strength of the nursing services for the Army in India in August 1939, was 313, including 55 sisters of the Indian Military Nursing Service (IMNS) (for 6,077 beds for Indian troops), 215 sisters of the QAIMNS (for 5,044 beds for British troops) and 43 matrons (actually available 40) for Families hospitals. In addition there was provision for the employment of 350 members of the Indian Voluntary Aid Service (IVAS) (250 for Indian troops and 100 for British troops).<sup>2</sup> The scope for expansion was also limited. While there were approximately 14,000 graduates and 27,000 licentiate doctors in India, fully trained nurses were estimated to be not more than 6,000.<sup>3</sup> Of these at least 1,500 had been trained in the regional languages only and were not suitable for recruitment to the IMNS, as all the work both clerical and clinical in the military hospitals was carried on in English. Another 1,000 were likely to be excluded by reason of age and about 700 on account of registration in more than one province. After making a further allowance of about 300 for those who had given up active practice after registration on account of domestic responsibilities, it was estimated that the field for recruitment was limited to a potential strength of not more than 2,500 nurses for the whole of India. It may be added that there were more than 6,000 civil hospitals and dispensaries in India. All of them had to draw upon this limited source for their requirements of nurses. It was also estimated that there were about 3,000 probationers under training in the various civil institutions in India which should have normally yielded at least 750 fully trained nurses every year. But it was usual for more than half this number to give up training before passing the final examination. Allowance had also to be made for other forms of wastage. Thus the annual increment could rarely exceed 350, actually in 1940 it was only 177. Against this background of appalling shortage of trained nurses in India, both in civil employment and in the Army, the first plans were made for improving the intake of trained nurses to meet military requirements.

### INDIAN MILITARY NURSING SERVICE (TEMPORARY)

The first step taken was to stop recruitment to the permanent cadre of the IMNS and to start a new service, IMNS (Temporary),

<sup>1</sup> For early history see Appendix XIV

<sup>2</sup> A/2/19/H(M) A/1/5/H(M) Return showing the actual strength of the Army and Air Forces in India 1 July 1939

<sup>3</sup> A/6/18/H(M), H/6/4/H(M)

on almost the same terms and conditions of service as were applicable to the regular members<sup>4</sup> Initially recruitment to the temporary cadre was made by the DMS. In May 1941, the PSOs Committee realising the inherent defects in this mode of recruitment, felt that as the DGIMS was in closer touch with the provincial medical administrations and was already responsible for the recruitment of medical officers for the Army, he should also be authorised to recruit nurses. Consequently the DGIMS was made responsible for the recruitment, terms and conditions of service and records of all nurses for the Indian Army. Therefore, the provincial Administrative Medical Officers (AMOs) were instructed to recruit nurses for the Army. The Army authorities also continued to recruit them. The PMs at the headquarters of armies and commands interviewed them and medical examination of the candidates was held in the local military hospitals.<sup>5</sup> Instructions were also issued to the officers commanding military hospitals to assist the civil AMOs in their recruitment work. The office of the DGIMS finally issued the letters of appointment. The result of this recruitment, however, was not encouraging and out of about 6,000 registered nurses in India, very few actually joined the service. Apart from the shortage of trained nursing personnel, the terms and conditions of service also were not attractive and there was a natural reluctance on the part of individuals to leave their homes and go abroad. There seems to have been also a feeling of discrimination between the British nursing services and the IMNS in India<sup>6</sup> In order to increase the flow of recruits, therefore, the terms and conditions of service were revised from time to time and efforts were made to equate these terms with those of the British nursing services. The first revision of the terms and conditions of service was made on 6 August 1940, and these were further revised on 9 December 1941.<sup>7</sup> More concessions were made as the war progressed. According to the new regulations a candidate had to be a fully trained state registered nurse in India, or the United Kingdom, the British Dominions or Colonies.

*Age limit.* The age limit for admission to the regular cadre of the IMNS was twenty-five to forty years, but in the case of the temporary cadre, it was reduced to twenty-three years in August 1940. A further reduction to twenty-one years was made on 31 January 1942, so that the younger qualified nurses might be able to join the service as soon as they had completed three years' general training, and become eligible for state registration ; so that their drift to other employments after qualification might be prevented. The upper age limit also had to be raised in order to widen the field for recruitment as well as to secure experienced nurses in the service. On 28 June 1941, the upper age limit was increased to fifty years. On 11 April 1942, the DGIMS was authorised at his discretion to waive the upper age limit in case the applicant was physically fit and otherwise suitable for service. At the same time, it was decided on 11 June

<sup>4</sup> H/5/13/H(M)      <sup>6</sup> H/6/4/H/(M)

<sup>5</sup> A/6/12/H(M)      <sup>7</sup> See AI (I) 365/1941 as amended from time to time

1942, to retain in service the nurses who had attained the age of superannuation viz. fifty-five years if they were medically fit and suitable for service<sup>8</sup>. They were not eligible for further promotion, but service after that age was reckoned as qualifying for pension within the maximum limit laid down.

*Marriage* The peace time regulations stipulated that a member of the regular as well as temporary cadre must be unmarried, or a widow or a married woman legally separated from her husband. Subsequent to June 1941, it was possible for married personnel to be recruited to the service. This concession was also offered to the members of the regular IMNS who were permitted to continue in service even after marriage.

*Duration of Appointment and Agreement* Under the regulations issued for the temporary cadre in August 1940, recruitment was made for the period of emergency with one month's notice of discharge on either side and there was no formal agreement regarding the duration of appointment. There was no restriction on resignations at any time. In order to put an end to this practice, it was provided in June 1941, that an agreement be signed by the entrants to the service. They were given the option of serving either until three months after the end of the war or else for a period of one year or two years. The Government had, however, the right to terminate the service by one month's notice or even without notice at any time if the nurse was found physically unfit for service, or was found guilty of insubordination, misconduct or any breach of faith. In August 1943, after the expiry of the period of contract for one or two years, the members of the IMNS were asked to execute fresh agreements on a revised form to serve so long as their services were required. With the exception of four all signed this agreement.

*Administrative Appointments* In June 1942, a step of far-reaching importance was taken to remove the existing bar against the members of the IMNS holding higher administrative appointments, e.g. principal matron. The Government of India recommended to the Secretary of State that members of the IMNS should also be eligible for appointment by selection to the higher administrative posts in the Military Nursing Services in India. It was observed that as long as the matrons of the IMNS were debarred on principle from rising to the higher administrative posts, the service would be regarded as a subordinate one and would fail to attract the best available material. It was also pointed out that the training of nurses in India had been considerably improved since the days of World War I. In all the major provinces there were statutory registration councils which exercised close supervision over the training and registration of nurses. It was further stated that in the civil nursing profession there was no bar to their reaching the top of the profession. On these grounds the Government of India believed that there should be no bar in the regulations to the promotion of the members of the IMNS to the

<sup>8</sup> H/5/13/H(M) H/J/57/H(M)



higher posts if they were considered suitable for such appointments by properly constituted selection boards. The Secretary of State suggested re-examination of the proposal on the ground that if such higher administrative posts were thrown open to the IMNS that would involve their exercising command over the nurses of the QAIMNS who were commissioned officers and who could not be placed under the nurses of the IMNS unless the latter were also commissioned. The Government of India had, however, by this time taken up the question of granting emergency commissions to the IMNS nurses. The Secretary of State was informed of this and in 1942 the agreement of the War Office was obtained to the proposal to make the members of the IMNS eligible for higher administrative posts.

*Grant of Commissions and Badges of Rank* · Consequent upon the grant of commissions in the United Kingdom to all women enrolled in the QAIMNS and the Territorial Army Nursing Service (TANS) and then Reserves, it became essential to grant similar commissions to the members of the IMNS and the Army in India Nursing Service Reserve (AINSR) who worked alongside their counterparts of the British services. They were already subject to military law and had been permitted to wear badges of rank. By an Ordinance No. XXX issued on 15 September 1943, the IMNS became a part of the Indian armed forces. The members of this service became commissioned officers and were thenceforth referred to as nursing officers and not as nurses.<sup>9</sup> In September 1945, the relative ranks of the nursing officers *vis-à-vis* the officers of the Indian Army were regulated as follows :—<sup>10</sup>

PM	Lieut.-colonel
Matron	Major
Senior sister, or sister with ten years' service	Captain
Sister	Lieutenant

The badges of rank which the members were permitted to wear on their uniforms both indoor and outdoor were, however, smaller than those authorised for the officers of the equivalent rank in the Army. It may be mentioned here that the members of the nursing services had already been authorised as early as 24 April 1942, to wear badges of rank;<sup>11</sup> matrons on both indoor and outdoor uniforms, and sisters on indoor uniforms only. This restriction was later removed in April 1943 when sisters with ten years' service or holding the post of sister-in-charge or assistant matron were also authorised to wear rank badges of captain.<sup>12</sup>

*Salary and Increments* · Improvement in the conditions of service was made by the issue of the revised terms on 9 December 1941. The scale of pay was fixed at Rs. 200-10-250,—efficiency bar—Rs. 260-5-300, and the initial rank was that of sister. The rank of

<sup>9</sup> H/5/13/H(M), H/5/57/H(M), IAO 2391/1943

<sup>11</sup> IAO 901/1942

<sup>10</sup> IAO 1951/1945

<sup>12</sup> IAO 796/1943

staff nurse was abolished for all future entrants. Promotion to the rank of matron to fill authorised vacancies by selection was also provided for. The pay of a matron was fixed at Rs 300-15-405. In addition to the basic pay, charge pay and specialist pay were also authorised. A uniform allowance of Rs 260 for the first year, Rs 65 for the second year and Rs 130 for subsequent years was also given. In addition expatriation allowance at the rate of Rs 50 per month for matrons and Rs 40 per month for sisters was authorised. In order to attract personnel with professional experience it was decided on 12 September 1942, to award 'advance increments' of Rs 10 for each completed year of service subject to a maximum of Rs 30 for such trained nurses as had reached the age of twenty-five years and had rendered approved whole-time service for three years or more in a recognised hospital or private institution. The increment was granted with the approval of the DGIMS. Later, the increment was raised from Rs 10 to Rs 11. On 14 October 1944, a new appointment of senior sister was also introduced for nursing officers of the IMNS who had held authorised appointments of assistant matron or of sister-in-charge.<sup>13</sup>

*Unemployed List* Subsequent to July 1944, an 'Unemployed List' was also created for the officers of the IMNS. Relegation to this list was only for reasons of a personal or compassionate nature. A member of the IMNS when relegated to this list was not eligible for any pay and the period for which she was on this list did not count for purposes of pay, promotion or any non effective award. This was done to retain in service married officers who were pregnant or who had to look after young children and who wished to relinquish their commissions on compassionate grounds. It was possible to recall them to service.<sup>14</sup> The 'Unemployed List' ceased to exist when demobilisation started and release on marriage priority was granted.<sup>15</sup>

*Accommodation* Members of the IMNS, both regular and temporary, were provided with free quarters, furniture, fuel light and fans. In addition grants were made towards the purchase of furnishings, table linen, crockery, cutlery, glassware and special amenities for the messes, which were made both attractive and comfortable. After January 1945, married officers were permitted, subject to the exigencies of service, to live out with their husbands if they were living in the same station.

*Disability Pensions and Gratuities* In the revised terms of 9 December 1941, provision was made for disability pensions, which were then raised to Rs 90 per month for total disability and to a proportionately decreasing rate for lower disability down to twenty per cent of the pay. On 15 September 1943, however, the rate of disability pension was raised to Rs 100 per month. In addition, in April 1944, Government orders were issued providing for the grant of pension to the dependents of the nursing officers with effect from

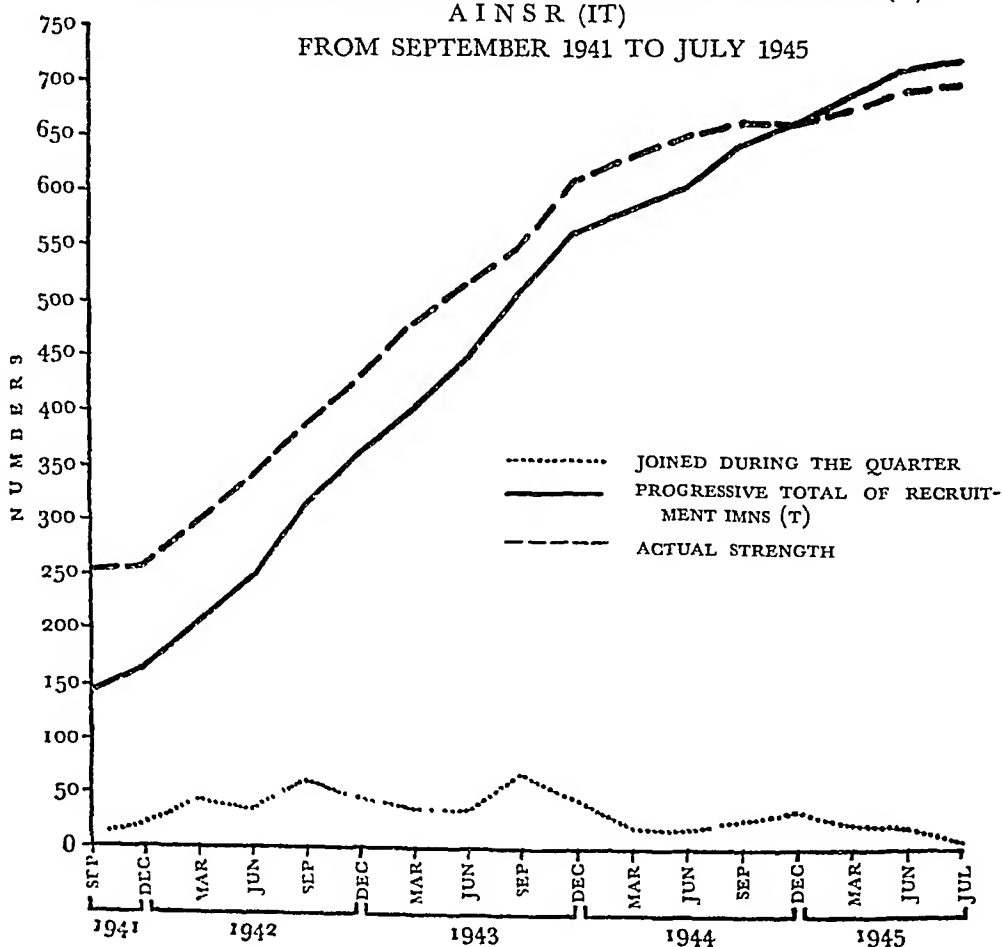
<sup>13</sup> H/5/13/H(M)<sup>14</sup> IAO 1149/1944<sup>15</sup> IAO 510/1944

15 September 1943.<sup>16</sup> On 1 September 1945, the following rates of war gratuity for each completed month of reckonable service were also sanctioned for nursing officers of the IMNS Regular<sup>17</sup> —

CPM . . . . .	33sh. 4d.
PM . . . . .	30sh.
Matron . . . . .	26sh. 8d.
Assistant matron, senior sister-in-charge, sister with ten years' military service	23sh. 4d.
Sister with less than ten year's military service	20sh.

The strength of the IMNS in September 1941, was 197 (53 regulars and 144 temporary). There were also 56 members of the AINSR(IT) serving at that time. The number of lady nurses, recruited to the IMNS(T) from 1 August 1941 to 1 August 1945, was 580. The actual number serving in August 1945, was 694, including 42 IMNS (Regular), 648 IMNS(T) and four AINSR(IT).<sup>18</sup>

QUARTERLY RECRUITMENT & STRENGTH OF IMNS (T) &  
A I N S R (I T)  
FROM SEPTEMBER 1941 TO JULY 1945



<sup>16</sup> H/5/13/H(M)

<sup>17</sup> AI(I) 798/1945

<sup>18</sup> H/6/4/H(M), H/5/13/H(M)

## ARMY IN INDIA NURSING SERVICE RESERVE

Simultaneously, with the start of recruitment to the IMNS(T), the AINSR was formed for maintaining a reserve of nurses to supplement the existing strength. A cadre of 200 nurses was sanctioned of which 50 were to be for British troops—AINSR(BT) and the rest for Indian troops—AINSR(IT). These could not be called up for military service without the specific sanction of the Government of India.<sup>19</sup> The first batch of AINSR joined about the beginning of September 1940. They were appointed in the rank of staff nurses and sisters, and were required to wear distinctive badges. In May 1941, it was decided to make no further recruitment to the AINSR(IT). At that time 24 nurses of the AINSR(IT) were serving and 23 were under orders to join. On 10 April 1943, all members were given the option of transferring to the IMNS(T). On 19 February 1944, it was further decided that a serving member of the AINSR(IT), if permitted to transfer to the IMNS(T), would count her embodied full pay service in the reserve for seniority, increments of pay and bonus on discharge. All members, with the exception of one (who was later transferred in 1945) and four others who were missing in Malaya, were transferred to the IMNS(T) early in that year. In 1945 two of the nursing officers returned from Malaya, and in 1946 they also joined the IMNS(T).<sup>20</sup>

## THE AUXILIARY NURSING SERVICE (INDIA)

The PSOs Committee had also considered the training and reorganisation of the IVAS, the details of which were to be elaborated by the DGIMS. This led to informal discussions with the leading members of the St John Ambulance Brigade (Overseas) and the convening of a meeting of the IVAS Council. This meeting was attended by the Chief Commissioner for India, St John Ambulance, the DGIMS, the DMS, the CPM and a representative of the War Department. The council decided to dissolve itself and disband the IVAS as recruitment to it had not been effective. It was further decided to create ANS(I) which would incorporate the members of the IVAS. The aim of the new body was to produce a large number of partially trained nurses, to supplement the Army requirements, by giving them an intensive training for a period of three months in recognised civil hospitals. Lady Lintlithgow inaugurated the service as its first president. Many other prominent persons assisted in working out the details such as the syllabus, the design of the badge, etc. A committee of ladies with Lady Hutton as its president was also formed to assist the DGIMS. The scheme for the ANS(I) was completed by June 1941. The final sanction of the Government of India was given on 5 August 1941<sup>21</sup> and the service was inaugurated on 24 September 1941. The members of the IVAS were given the option of transferring

<sup>19</sup> F/Z-6292/H(M)<sup>20</sup> H/5/13/H(M), H/5/57/H(M)<sup>21</sup> Terms and conditions of service in the ANS (I) are given in AI (I) 277/1944 as amended from time to time

to the new service, but those who did not so choose, continued to serve under their existing terms and conditions. DGIMS in collaboration with the St. John Ambulance Association, was made responsible for recruitment to and supervision of the service, until its members were called up for military service. In this he was assisted by a full time salaried officer, responsible to him for the administration of the service. The members of the service were recruited in two classes, local and general. Local service members were available for duty within a specified area only. They were also called to volunteer for Air Raid Precautions (ARP) duties. The general service members were required to serve either in Indian or British hospitals in India. They were, however, not precluded from volunteering to serve overseas. The recruitment was carried out in collaboration with the St. John Ambulance Brigade which had branches all over India. A close link with the Brigade was facilitated as the DGIMS was its Surgeon-in-Chief, and in nearly every province the AMO was the Assistant Commissioner. The lady superintendents acted as local recruiting agents.

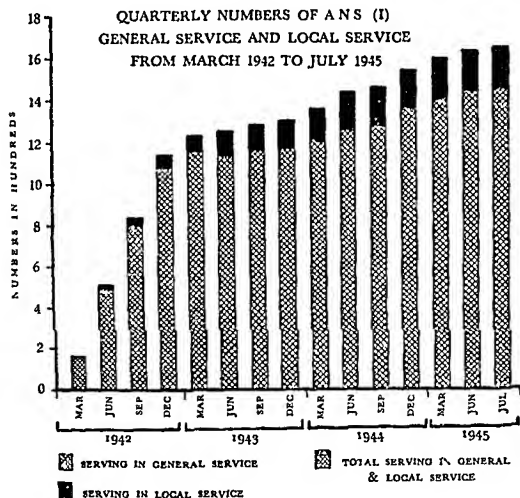
The officers of the St John Ambulance Brigade rendered valuable service in an honorary capacity. They took over the work of recruiting, interviewing and equipping, both for initial training and subsequent enrolment in military service. Recruitment was also done by the military authorities. In the initial stages of the service publicity for recruitment was carried out by the office of the DGIMS through the Bureau of Public Information, the Chief Press Adviser and Advertising Consultant. From 1942 notes and advertisements were approved by the War Department. The lady district superintendents were also authorised to insert advertisements in local papers. All concessions and important changes in the terms and conditions of service were announced by press notes and were also communicated to the AMOs and lady district superintendents for wide publicity.

The Chief Lady Superintendent of the St John Ambulance Brigade and publicity touring teams, including non-official members, visited educational institutions in important towns and explained to the students the advantages of joining the nursing service during the emergency and of ultimately adopting the nursing profession as a career.

Preference was given to nurses who were either unmarried or if married were legally separated from their husbands, and to widows and to those who volunteered for service overseas. Recruitment to the local service was also kept open for fully trained certificated nurses, partially trained nurses who had passed the hospital or state preliminary examination in general nursing or state examination in midwifery. Recruits with previous experience in nursing were exempted from training and examinations. In March 1943, nurses trained in the regional languages were also admitted for local service.<sup>22</sup>

<sup>22</sup> H/5/13/H(M), 11/5/57/H(M)

A total of 2,787 joined the ANS(I) for service with the Army or for civil defence duties. These included 2,382 for general service, 327 for local service in the Army and the remainder for local service on civil defence duties. On 1 August 1945 the actual number of ANS(I) cadets serving was 1,709, including 1,500 for general service, 177 for local service in the Army and the remainder for civil defence<sup>23</sup>



**Training** The first batch of candidates for training was sent to the selected civil hospitals in October 1941. The minimum period of training was three months. At the conclusion of this training a qualifying examination was held. In the case of fully trained nurse holding a certificate of three years' training in the medical and surgical nursing of men, women and children no further training was necessary. In the case of an applicant who had already received training as an uncertificated nurse, such training, if approved, was counted against the whole or part of the prescribed minimum three months' training. Attendance at a prescribed course of training in first aid and home nursing of the St John Ambulance Association was recognised for this purpose. The scheme of training also provided for a further

<sup>23</sup> H/6/4/H(M)

training of three months to the members who had completed the preliminary training at an approved hospital, at the discretion of the DGIMS. During this period the trainees were required to reside in a hospital. It was, however, decided in March 1942, that the further training of three months was not necessary.<sup>24</sup>

In order to supplement the training in civil hospitals it was decided, at a conference held on 30 December 1941, that certain military hospitals should also be utilised for the purpose of training. The approval of the Provincial Nursing Registration Councils was obtained for the recognition of selected military hospitals as training centres. This training commenced in January 1942. By June 1942, the immediate needs of the Army having been met, the training in military hospitals was discontinued.

In March 1942, the Government of India sanctioned the employment of twelve sister tutors in the civil training hospitals for the initial training of the ANS(I) members.

In August 1942, the minimum training period of three months was extended to nine months if the candidate was not in the meantime absorbed by the Army. The qualifying examination was, however, held at the end of three months' training. Further examinations were held from time to time as prescribed.

In April 1943, as the local service members, except those already trained or under training, were not required by the military authorities, the training of this category was discontinued.

In October 1943, ANS(I) trainees from some civil hospitals after three months' training were permitted to continue their training for a further period of three months at the military hospitals recognised by one of the Provincial Nursing Councils. For this purpose Nos. 2 and 7 Indian Base General Hospitals (IBGH) at Kirkee were selected. Training at these hospitals was discontinued in December 1945.

In August 1944, the training of local service candidates was resumed. Members, however, could only be trained for local service if they had justifiable reasons for not joining the general service.

Although the ANS(I) was devised as a short term scheme to provide nurses for the Army within the shortest possible time, it was considered imperative to have a long term plan. The IMH Jullundur and the CMH Roorkee were, therefore, equipped as training schools. These schools were recognised by the Provincial Nursing Councils of the Punjab and the United Provinces for the preliminary state examination. The training staff at these hospitals included qualified sister tutors. In July 1945, the senior sister tutor and two sisters in each of these hospitals were upgraded to matron and senior sisters respectively. Selected ANS(I) general service members received further training of six to nine months. This training was recognised in full for purposes of the preliminary state examination and the candidates were permitted to take the examination. By 1946, 130

<sup>24</sup> H/5/13/H(M)

ANS(I) members had passed the preliminary state examination from these hospitals, and 38 were under training in preparation for the July and October examinations. Fifteen members who had passed the examination were released from the Army and were then completing their full training in recognised civil training hospitals <sup>25</sup>

*Grading and Status in the ANS(I)* In December 1943, a system of grading for the ANS(I) nurses was introduced. There were three grades. All were initially placed in grade 1. Grade 2 was given after the completion of eighteen months service. Grade 3 was reserved for registered nurses, registered midwives and for other uncertificated nurses, who had passed the preliminary state examination before enrolment in the ANS(I). Members who had passed the preliminary state examination while serving in the ANS(I) were also eligible for grade 3 <sup>26</sup>. On 18 August 1945, the status of the ANS(I) was changed from nursing auxiliary to nursing cadet.

*Difficulties in Recruitment and Training* By the end of the first year of its existence recruitment to the ANS(I) was seriously affected by the creation of the WAC(I) with all its attractions, such as relatively lighter duties, fewer hours of work and the greater likelihood of quick promotion including commissioned rank. Several attempts were made to secure a priority for the ANS(I) *vis-a-vis* the other women services, but these were not altogether successful in remedying the effects of the unfortunate competition. The field for recruitment was very limited and the choice of a profession was decided on economic rather than on other grounds. The following were some of the partial solutions that were attempted to counteract the drift of potential recruits to WAC(I) —

- (i) The undertaking by the WAC(I) authorities not to accept for their service applicants with previous nursing experience without a prior reference to the office of the DGIMS
- (ii) The change in the designation of the ANS(I) nurse from the 'Nursing Auxiliary' to 'Nursing Cadet', and
- (iii) Removal of the disparity between the terms of service of the the ANS(I) trainee and that of the WAC(I), immediately on enrolment, by the grant of an increased bonus of Rs 240 to the former instead of the existing Rs 100

These remedies no doubt partially succeeded in giving additional stability to the ANS(I). This auxiliary service, devised purely as a war-time measure, however, would have been a greater success than it was, had it been realised that nursing is mainly a women's profession, and had the necessary priority been accorded for the diversion of all available woman power to the nursing service.

The other main problems were the large number of resignations on the expiry of contracts, requests for release on grounds of marriage and non utilisation of the uniform allowance for the purpose for which it was meant. The resignations were mainly facilitated by the earlier terms of contract which specified an initial maximum period

<sup>25</sup> H/5/13/H(M)

<sup>26</sup> H/5/13/H(M)



of one year's service, with the option to resign from the service or to renew the contract for further periods of one year at a time. The contract as stated above was, therefore, amended so that a member signed on to serve for the duration of the war and six months thereafter. It was, however, apparent that a serving member would not ordinarily leave the service on the expiry of her contract unless the existing conditions of service were unsatisfactory or unless there were other attractions to warrant a change. Both these reasons operated towards a diminution in the number of the ANS(I) members. This trend was successfully halted by improving the conditions of service from time to time and by representing the need for allotting greater priority to the nursing service *vis-a-vis* other women services.

*Improvements in the Terms and Conditions of Service :* The following were the main improvements that were carried out in the terms and conditions of service .—

- (i) Substitution of the earlier terms which provided for uncertificated nurses, a pay of Rs. 168-2½-188-3-194 inclusive of messing charges, which varied from time to time and from place to place on account of the peculiar conditions created by the war, by a system of free board and lodging with Rs. 100 as pay.
- (ii) The abolition of the payment of an extra 25 per cent. of pay to those in the messes attached to BMHs as this led to a feeling of invidious distinction.
- (iii) Improvements in the pay of certificated nurses from Rs. 107-5-142 to Rs. 135-5-175, with free board and lodging
- (iv) Payment of an increased bonus of Rs 50 per annum for contracts to serve for the duration of the war and six months thereafter, subject to the fulfilment of the contract.
- (v) Increased rates of uniform allowance to meet the rising cost of articles of uniform
- (vi) Grant of 'advance increments' of pay for certificated nurses and certificated midwives for approved previous professional nursing experience
- (vii) Introduction of a system of grading with proficiency pay of Rs. 2, 4 and 6 according to the grade.
- (viii) Grant of a field allowance of Rs. 20 per month.
- (ix) Grant of Japanese campaign pay of Rs. 26-11-0 per month.
- (x) Grant of war service increment
- (xi) Grant of disability and dependents pensions.

By various improvements in the terms and conditions of service and by other concessions, and by a sympathetic understanding of the difficulties of the individual members, it was hoped that attempts to leave the service would be reduced to a minimum. Requests for release on grounds of marriage were not tenable since marriage was no bar to continuance in the service. By persuasion and by the grant of a reasonable period of leave without pay such releases were also avoided as far as possible.

*Release* Nursing cadets of the ANS(I) general service who had joined for the duration of the war and six months thereafter, were brought within the scope of *Indian Army Release Regulations*. Nursing cadets who were on a yearly contract were not eligible for release under these regulations but were discharged after the expiry of their period of contract.

#### TRAINING FACILITIES FOR NURSING CADETS AFTER DEMOBILISATION

The following training facilities were provided in selected civil hospitals and training institutions for nursing cadets after demobilisation. Nursing cadets who desired to undergo civil nursing training with a view to qualifying as state registered nurses were provided with the necessary training facilities in recognised civil hospitals in all the provinces. They were kept in military employ until arrangements had been made for their admission to the training centres. As the training was carried out in recognised hospitals according to prescribed standards, all the Provincial Nursing Registration Councils in India were prepared to recognise and count towards a three years' training, the following periods of service —<sup>27</sup>

- (i) Full period of initial ANS(I) training of three to nine months
- (ii) One quarter of approved service from the date of joining the service to the date of commencement of training
- (iii) Full period of training as military probationers in selected military hospitals, viz IMH Jullundur, and CMH Roorkee
- (iv) One half of further continuous approved military service after passing the preliminary state examination of the United Provinces, or Punjab Nursing Councils

A candidate had to complete, after release from the ANS(I) at least eleven months' training in the nursing of women and children, before appearing for the final state examination. The maximum credit of ANS(I) training and service was thus two years and one month. Local service members were not entitled to the above concessions. In their case, the period of initial training only could be counted for the purpose of curtailment of training periods.

#### RECRUITMENT OF NURSES FROM FOREIGN COUNTRIES

Throughout the war, the military nursing services were deficient by approximately 50 per cent. All possible avenues to improve the situation were explored.

Nurses were recruited in Malaya, Burma, the United Kingdom, China, Australia and the Middle East. In November 1940, sanction was accorded for the local recruitment of trained nurses in Malaya and nine lady nurses joined for military duty.<sup>28</sup> Their terms and conditions of employment were the same as for the IMNS(T). On

<sup>27</sup> H/5/13/H(M)

<sup>28</sup> A/6/12/H(M) H/5/57/H(M)

16 July 1941, permission was given for the local recruitment of temporary nurses in Iraq under the IVAS terms. Four nurses were thus employed. The largest addition was, however, possible from Burma when, after the fall of Singapore in February 1942, nurses of the Burma Army arrived in India. They belonged to two services, the Burma Hospital Corps (Nursing Service) and the Voluntary Aid Detachment (Burma). The former were fully trained and numbered sixty-one. The latter were semi-trained or untrained and numbered forty-six. The Burma Hospital Corps Nursing Service members retained their identity and were not absorbed into the IMNS(T) though they received similar pay and allowances while serving with the Indian Army. The members of the Burma Voluntary Aid Detachment were absorbed into the ANS(I) and were given a pay of Rs. 85 per month with allowances amounting to Rs. 55 per month.<sup>29</sup> In March 1942, sanction was also given to recruit trained nurses in the United Kingdom, China, Australia and the Middle East.<sup>30</sup> The number of nurses thus recruited was nine from the United Kingdom, and one each from China, Australia and the Middle East.

#### RECRUITMENT OF PROBATIONERS—FINAL YEAR

In October 1943, in order to accelerate the rate of recruitment to the IMNS(T) and to ensure a steady supply of fully trained nurses from among those qualifying for the final state examination, the Government of India authorised the payment of a bonus of Rs. 100 per month to suitable probationer nurses in recognised training institutions who on completing two years and nine months' training executed an agreement undertaking liability to serve in the IMNS(T). The bonus was payable as soon as the candidates were declared to have passed the examination.

It was also decided to recruit for military duty final year probationer nurses with two and a half years training from selected civil training institutions. They were in the first instance recruited in the ANS(I). At the end of six months service in the ANS(I) they were required to appear for the final state examination. Until they had passed this they were attached to military hospitals nearest their examination centres and were not sent overseas. Those who qualified in the examination were transferred to the IMNS(T) but those who failed continued in the ANS(I) until such time as they were successful. Under this scheme the training institutions that released their final year probationers were entitled to a sum of Rs. 450 per head, as soon as the probationer reported for military duty. Up till 31 December 1943, eleven final year probationers had been thus recruited in the ANS(I) out of which six were transferred to the IMNS(T).<sup>31</sup>

<sup>29</sup> H/5/13/H(M)

<sup>30</sup> F/1390/H(M)

<sup>31</sup> H/5/13/H(M)

ACCEPTANCE OF ASSISTANCE FROM ST JOHN AMBULANCE BRIGADE  
CALCUTTA

An offer of assistance was made by the St John Ambulance Brigade in October 1942, for —<sup>32</sup>

- (i) The replacement of Army nurses in Calcutta in an emergency
- (ii) Despatching a mobile nursing detachment to any hospital outside Calcutta where there was a sudden influx of patients necessitating additional nursing staff or for any nursing duty deemed an emergency by the military authorities

The offer was gratefully accepted. With regard to their employment outside Calcutta, it was proposed to divide the detachment into two groups, each consisting of one nursing officer and seven to ten ambulance or nursing sisters, besides other personnel. The members of the brigade moved at Government expense when proceeding for outstation duty. They also received ration allowances at the rate of Rs 3 per day when no rations were drawn or at the rate of Rs 180 per day when in receipt of rations, to compensate for additional messing expenses.

## CMH WALTAIR (NURSING BY NUNS)

On 1 January 1943, in order to relieve military nursing officers for other duties, six nuns of the St Joseph's Convent (trained nurses) were employed in the CMH Waltair, which had eighty beds for Indian troops and forty beds for British troops. Their terms and conditions of service were the same as for local service ANS(I) members. They converted their school into a hospital and gave full time duty and lived in their own quarters. This was an economic arrangement from the Army point of view. In February 1945, consequent on the expansion of the hospital to 400 beds for Indian troops and 250 for British troops, its site had to be changed. The nuns moved also, but they experienced some difficulty owing to an increase in their cost of living, as the new site was several miles from the convent. Their terms of employment were, therefore, revised with effect from 1 April 1945. In April 1945, the hospital was divided into two sections for the purpose of nursing. The surgical section was taken over by British nursing officers while the medical was retained by the nuns whose maximum number had reached forty two, consisting of eleven certificated and thirty one uncertificated nurses. At the request of the convent authorities these nurses were released on 1 December 1945. A letter of appreciation from the Army was sent to the nuns for their excellent and devoted service.<sup>33</sup>

## EMPLOYMENT OF LOCAL NURSING STAFF AT THE IMH MHOW

On 30 August 1943, the nursing arrangements at the IMH Mhow were entrusted to the Chief Medical Officer in Central India,

<sup>32</sup> F/2240/H(M)<sup>33</sup> F/18089/H(M)

Indore, and it was proposed to employ the local nursing staff as a nursing unit in the military hospital. But the nurses trained for two to three years in regional languages at the King Edward Medical Hospital, Indore, and Mission hospitals were not eligible for registration with any of the Provincial Nurses' Registration Councils in India. As such, they could not normally be employed in local military hospitals. Special terms for their employment were, therefore, sanctioned. The nursing staff consisted of a Canadian trained nurse and eight mission trained Indian Christian nurses. The number increased to thirteen nurses on 1 October 1943, and these worked successfully till 28 February 1946, when IMNS officers relieved them.<sup>34</sup>

#### IMH BOMBAY (CIVIL ADMINISTRATION)

The administration of the IMH Cumballa Hill, Bombay, (Parsee General Hospital) was taken over by the Government of Bombay, in September 1943. Twelve trained and thirty-eight untrained nurses were employed. On the disbandment of the hospital at the end of January 1946, twenty-one civil nurses were serving on the staff.<sup>35</sup>

#### NURSING SISTERS FOR THE RIN HOSPITAL

The first appointment of nursing sisters in the RIN Hospital was made in July 1943. They were recruited directly by the medical officer in charge of the hospital under authority from DGIMS. Their terms of service were similar to those of the IMNS(T) except that they were not commissioned officers. The strength of these nursing sisters reached seventeen in 1945. They were under the supervision of a matron and an assistant matron. In 1944, one nursing sister was posted to the WRINS Hospital in Vizagapatam and remained there till the end of 1945. Nursing sisters were generally in charge of the wards and supervised the work of SBAs. There was also one sister in charge of the operating theatre and this seems to have been the only specialist appointment held by a member of nursing staff.<sup>36</sup>

#### SCHEME FOR VOLUNTARY PAID AND UNPAID WORKERS

In January 1944, the Central Command drew up a scheme for providing in each station a nucleus of local women trained in elementary nursing, who would be available to assist the regular nursing staff in case of emergencies due to unforeseen outbreaks of illness, operational transfers from other Commands and Armies, or unexpected local shortage of regular staff. The scheme provided for nursing reserves of voluntary unpaid and paid workers who would undertake work even though the remuneration received was sufficient merely to cover expenses. Voluntary unpaid workers were members

<sup>34</sup> H/5/13/H(M), H/5/57/H(M)

<sup>35</sup> H/5/57/H(M)

<sup>36</sup> H/5/5/H(M) See also page 42.

of the nearest available St John Ambulance Association Nursing Division and were trained at the local military hospitals without any training allowances, and when enrolled for service, were entitled to free military transport or Rs 30 in lieu thereof. Paid workers were trained under the ANS(I) local service terms in civil hospitals for at least three months and on qualifying were enrolled for full or part-time local service. The terms and conditions of service and training of local service ANS(I) were adjusted so as to embrace all paid local workers including those who required remuneration only to cover out of pocket expenses.

#### LADY MINTO'S INDIAN NURSING ASSOCIATION

In May 1944, it was decided that, where practicable, members of the Lady Minto's Indian Nursing Association, when not required for association work, might be accepted for employment in local military hospitals against authorised nursing establishments at the discretion of the DMS in India. The association was paid half the salary of the nurses for the periods when they were not employed on military duties, as resting salary. Free messing and transport were provided when required on the same terms as for the ANS(I) general service. But only two sisters joined for part-time duties in the Military Hospital at Shillong.<sup>37</sup>

#### MEMBERS OF THE BRITISH NURSING SERVICES FOR DUTY WITH INDIAN TROOPS

One other expedient which was utilised to make good the shortage of nurses was the employment of British Voluntary Aid Detachment (VAD) nurses for duty in the hospitals for Indian troops in India and the Far East.<sup>38</sup> The first batch of 200 VAD members arrived in September 1944, and the highest number reached, including wastage, was 699 in January 1946.<sup>39</sup> The actual number serving in August 1945, was 391.<sup>40</sup>

The shortage of trained nurses in Indian military hospitals continued to cause grave anxiety. The intake of recruits in the IMNS(T) was disappointing throughout the war period. Commencing with 245 members in August 1941, the number that was reached in August 1944, including wastage, was 653. In addition 1,332 auxiliary nurses, general service, were employed, but their value was limited and they required trained supervision. It was, therefore, considered necessary to obtain additional nurses lest the nursing standards should deteriorate. On 6 August 1944, the Viceroy requested the Secretary of State for volunteers from the British nursing services in the United Kingdom and the Dominions, for employment with Indian troops 'when fighting in Europe ends'. This resulted

<sup>37</sup> H/5/57/H(M)    <sup>38</sup> Government of India War Department letter No. 23366/2/DMSg  
<sup>39</sup> A/1/20/H(M)    dated 18 August 1944 [L/7/5/H(M)]

<sup>40</sup> A/1/16/H(M)

in the sanction for the employment of 1,000 members of the QAIMNS from the United Kingdom. In order to encourage volunteers, each member was paid an additional allowance of Rs. 100 per month. The scheme was to last for one year with effect from 1 December 1945. Drafts started arriving in October 1945, but before the last draft was despatched from the United Kingdom the need for a large number of nurses was practically over and before the end of 1946 they were all withdrawn.<sup>41</sup>

#### CONCESSIONS GRANTED BY PROVINCIAL GOVERNMENTS TO LADY NURSES FOR SERVICE WITH THE ARMY

To stimulate recruitment and so reduce the deficiency of nurses in the armed forces, the Provincial Governments allowed the following important concessions to the nurses who volunteered for service in the Army during the war :—<sup>42</sup>

- (i) Nurses from Government service were allowed to retain a lien on their posts.
- (ii) The period of military duty was to count towards gratuity, pension, increments, and leave, as admissible in their civil appointments.
- (iii) In making selections for the various classes of nurses in Government hospitals, preference would be given to those who had rendered satisfactory military service.
- (iv) A nurse who had rendered military service would be permitted to deduct from her age the period of such service for the purpose of the rules prescribing the age limit for entrance to Government service. The Government of India agreed to pay pensionary or provident fund contributions, whichever was applicable, and also leave salary contributions.

#### THE SCHOOL OF NURSING ADMINISTRATION

The ever increasing demand for trained administrative nursing personnel during the war revealed the paucity of training institutions. It was also realised that with the passage of time, both during the war and in peace time, the demand for the employment of such nurses would increase in the civil and military establishments. Hence, in April 1943, with a view to providing facilities in India for the higher education of nurses for administrative and sister tutors' posts, the Government of India sanctioned the establishment of a school of nursing administration for the duration of the war or till 31 March 1945,<sup>43</sup> whichever period was shorter. The school was located in the

<sup>41</sup> F/6807/122/H(M)      <sup>42</sup> H/5/13/H(M)

<sup>43</sup> Later the continuance of the school was sanctioned upto 31 March 1949, and the Government of India raised it to the status of a college, with a B Sc (Honours) Nursing Course

premises of the Lady Reading Health School, Bara Hindu Rao, Delhi. The expansion in military hospitals had resulted in the promotion of junior sisters, who had no experience of administration, to the rank of matron. With a view to training such nurses, arrangements were made in the school to provide for them an intensive post-graduate course in nursing administration (or hospital administration) of eight months, and a sister tutors' course of nine months duration. For nursing officers of the IMNS, who were likely to assume the duties of matrons, an intensive course in hospital administration of three months duration was also instituted. It was agreed to depute IMNS nursing officers to the course in batches of six at a time. Twenty-four nursing officers had received training at the school when the training of military students was discontinued in 1944. In July 1945, it was decided to detail IMNS officers, of the rank of sister, in batches of not more than four at a time to undergo the sister tutors' course at the school. The nursing officers attending the course were to be regarded as on military duty and as such were eligible for full pay and allowances during the entire period of training. The fees payable to the institution in respect of each military student attending this course, were not normally to exceed Rs 600. The fee covered the cost of accommodation, the expenses on account of boarding and laundry were to be met by the students themselves. The first batch of four nursing officers was detailed for the course which commenced on 31 July 1945, and up to July 1947, a total of eleven IMNS members had attended the course.<sup>44</sup>

#### STAFF APPOINTMENTS

*Office of the DGIMS* The Nursing Branch at the office of the DGIMS was formed in August 1941, under the control of the Chief Lady Superintendent ANS(I). To cope with the increase of work an assistant chief lady superintendent was appointed in January 1943.<sup>45</sup>

*Medical Directorate* Prior to 1942 CPM was the only nursing officer in the Medical Directorate. With the rapid expansion of the nursing services, consequent on the entry of Japan into the war, appointments of two PMs and one SM were sanctioned. Of the two appointments of PMs, one was held by an officer of the Indian service and the other by one of the British service. The SM's appointment could be held by an officer of either service. The CPM was given the relative rank of Brigadier in May 1944.<sup>46</sup> Appointments of a PM and matron were also sanctioned at each Army/Command headquarters. In September 1943, a SC, junior commander WAC(I) was added to the establishment at GHQ.<sup>47</sup> After the formation of the IAMC in April 1943, it was considered necessary to appoint a matron instructor on the staff of each training and depot centre, to improve the training of the IAMC recruits. Matron instructors were to be

<sup>44</sup> H/5/57/H(M)

<sup>45</sup> A/6/39/H(M)

<sup>46</sup> T/3603/34/H(M)

<sup>47</sup> In April 1944 another PM was added to the staff at Headquarters Central Command.



found from among ex-matrons or senior sisters of the IMNS who, while eminently suitable for teaching purposes, might not be physically fit to continue the arduous duties required of them in large hospitals. On 12 October 1943, four matron instructors were thus employed. These appointments were abolished with effect from 1 April 1946. On 18 January 1944, posts of two matron<sup>48</sup> examiners each in North Western Army, Southern Army and Central Command were sanctioned. Matron examiners were responsible for the examination of the nursing section personnel of the IAMC on the conclusion of their training in selected hospitals with a view to assessing the capabilities of the trainees and grading them accordingly. They were also required to tour all the training hospitals monthly to hold such examinations. Staff appointments in the nursing services thus gradually increased. By October 1945, these appointments in India and SEAC were as below :—<sup>49</sup>

*INDIA*

## GHQ

CPM . .	1
PMs . . . . .	2
SM . . . . .	1
VAD liaison officers	3
SC WAC(I)	1

*Armies/Commands*

PMs . . . . .	5
SMs . . . . .	4
Matron examiners . . . . .	7
Total . . . . .	24

*SEAC*

CPMs . . . . .	2
PMs . . . . .	2
SM . . . . .	1
VAD assistant liaison officers . . . . .	2
Total . . . . .	7

## NURSES IN MEDICAL UNITS

The number of nurses authorised for medical units changed from time to time. The authorised scale in January 1945 was as follows:—<sup>50</sup>

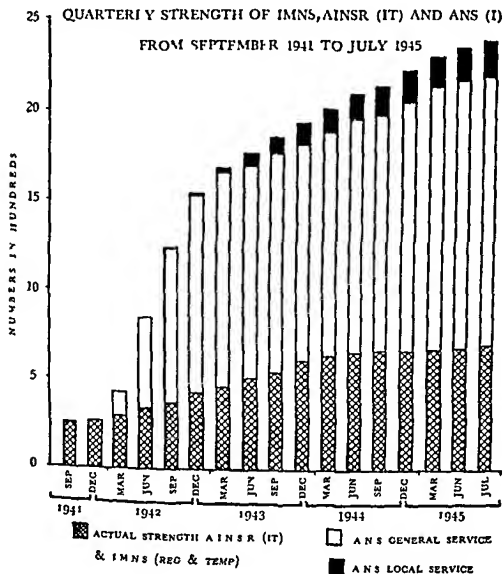
<i>Unit</i>	<i>Establishment of nurses</i>
Casualty clearing station (CCS) . . . . .	8
IGH(C). . . . .	3·5 per cent. of beds for Indian troops. 6·4 per cent. of beds for British troops

<sup>48</sup> An additional matron examiner for Headquarters Central Command was sanctioned on 9 April 1945, F/3610/22/H(M)

<sup>49</sup> A/3/29/H(M), F/0315/2/H(M)

<sup>50</sup> A/2/58/H(M), A/1/8/H(M)

Unit	Establishment of nurses
Indian general hospital (Indian troops) IGH(IT)	3.5 per cent of beds
Indian Base General Hospital (Indian Troops)—IBGH(IT)	3.5 per cent of beds Later increased to 6 per cent
Indian Base General Hospital (British Troops)—IBGH(BT)	6 per cent of beds
Garrison military hospital	8 per cent of beds
Orthopaedic wing (Indian Troops)	5 to 11 according to number of beds
Orthopaedic wing (British Troops)	
500 beds	7
1,000 beds	11
Maxillo facial unit	1
Ambulance train	2
Hospital ship	10 or 11
Hospital carrier	6
Hospital coastal steamer	1 to 6
River steamer	2



## CONCLUSION

It will be evident from the foregoing account that the necessity for expanding the nursing services was a direct outcome of the war, which was further intensified by the entry of Japan into the conflict. The methods devised from time to time to increase the output of the nursing personnel failed to keep pace with the ever mounting needs. Even the employment of auxiliary services could not bridge the gap. The unsatisfactory conditions of service undoubtedly were responsible to some extent for the small number volunteering to serve in the nursing service. The deficiencies were quite marked at every stage as will be obvious from the following figures.<sup>51</sup>

<i>Date</i>	<i>Establishment Available</i>	<i>Deficit</i>
30 September 1940	211	84
30 September 1941	414	275
31 December 1942	3,258	1,549
31 December 1943	4,207	1,919
31 December 1944	4,958	2,439
31 July 1945	5,492	2,705
		2,787

But the difficulty in providing the required number of nurses during the war was primarily due to the shortage of nurses in the country. The imperative necessity to accelerate the output of nurses in the country during peace is only too obvious. Nevertheless the achievements of the Indian military nursing services were remarkable. Their members served in Ceylon, Aden, Egypt, North Africa, Sudan, Eritrea, Cyprus, Palestine, Syria, Iraq, Italy, the United Kingdom, Burma, Singapore, Malaya, Hong Kong, Japan and Indonesia, where they functioned either as absolutely self contained units or else in collaboration with the British nursing services. They suffered casualties during the loss of Malaya and Singapore in February 1942, and some of them had to experience the rigours of imprisonment for more than four years. Their work in the different fields brought to the Indian services well-merited recognition by the grant of sixty-two decorations and Mentions in Despatches. One hundred and fifty-three members of the ANS(I) had at one time or the other served in Iraq, Iran, Egypt and England. Five were mentioned in Despatches. Four of them received the honour of associate membership of the Royal Red Cross.<sup>52</sup>

## WOMEN'S AUXILIARY CORPS, INDIA IN MILITARY MEDICAL SERVICES

The WAC(I) was formed<sup>53</sup> on 9 April 1942, for the purpose of providing women to perform those duties in the Defence Services, for which women inherently possess special qualifications. They were to relieve an equal number of men. The medical services were authorised in the beginning to employ them in the following trades :

<sup>51</sup> A/4/26/H(M), F/23459/H/(M), F/z-22687/H(M), H/6/4/H(M), A/1/14/H(M).

<sup>52</sup> H/5/13 H(M) <sup>53</sup> A I (I) 132/1942

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dispenser, masseuse, operating room assistant, laboratory assistant, store woman, hospital and radiographer. On 6 January 1943, sanction was also given for the appointment of six dieticians, in the rank of junior commanders in general hospitals in India, as an experimental measure. These appointments were suspended by the end of 1943 as sufficient candidates with requisite qualifications were not forthcoming.<sup>54</sup>

#### REPLACEMENT OF SISTERS BY WAC(I) IN CERTAIN HOSPITALS

The shortage of qualified nurses, as already stated, was very acute. Only a small proportion of vacancies in authorised hospital establishments could be filled by trained sisters. It was, therefore, essential to make the best possible use of the available trained personnel. The duties of matron, assistant matron and home sister could be performed by WAC(I) officers. They could not replace nursing officers but while establishments were incomplete they could enable matrons and sisters to spend more of their time on professional work. On 20 January 1943, sanction was accordingly given for the employment of 100 WAC(I) officers in certain selected garrison and general hospitals in India of 200 beds and over.<sup>55</sup>

*Laboratory Assistants* WAC(I) laboratory assistants were authorised for the military laboratories at Poona, Quetta, Peshawar, Rawalpindi, Lahore, Meerut, Bombay and Bangalore. These were to be employed on general service terms only. They were required to attend a course of training at the District Laboratory, Meerut, for a period of four to five months.

*Masseuses* WAC(I) masseuses were authorised to replace BORs masseurs in authorised establishments. These could be employed on general or local service terms. They were required to pass a trade test which was based on the qualifications required of an RAMC masseur.

*Radiographers* WAC(I) radiographers could be employed in replacement of IAMC or RAMC radiographers in hospitals with an authorised bed strength of 200 beds and over. They could be employed on general service terms only. Candidates were required to undergo a course of training not exceeding four months at No. 3 IBGH Poona. On the conclusion of the course, if found satisfactory, they were posted to a hospital where a radiographer was authorised. Appointments of ten radiographers WAC(I) were sanctioned on 1 May 1943. On 6 November 1943 one WAC(I) was appointed as radiographer at the Combined Indian Military Hospital (CIMH), Barrackpore on local service terms for WAC(I).

*Dispensers and Store Women* WAC(I) dispensers and store women could be employed on general or local service terms to replace RAMC dispensers or nursing orderlies on store duties.

<sup>54</sup> F/2173/H(M) F/0913/4/H(M)

<sup>55</sup> F/2264/H(M)

*Kitchen Supervisors* . Kitchen supervisors were authorised on the scale of one per military hospital with a bed strength of 200 beds and over. They were employed on general or local service terms.

*Operating Room Attendants* : Some WAC(I) personnel were also employed as operating room attendants but in December 1943, it was decided that no further applications for this trade would be considered in order to maintain a clear demarcation between nursing duties and those performed by the WAC(I) personnel. Those already engaged on this work were, however, allowed to continue.

*Assistants in Medical Inspection Rooms* : WAC(I) personnel in the rank of sergeant to assist the military medical officers, were appointed at the medical inspection rooms at Fort William, Calcutta and Ballygunge in October 1943, and at Kankinara in December 1943.

They could not be appointed for duties in the wards of hospitals and in clerical appointments except in replacement of Indian or British other rank clerks.

By 4 December 1943, the number of WAC(I) personnel employed in various appointments in military hospitals was as follows :—

	<i>Authorised</i>	<i>Actually employed</i>
Quartermasters .	131 <sup>†</sup>	33
Dietitians .	6	2
Assistants to matrons ...	100	12
Dispensers (garrison hospitals)	67	
IBGHs(BT) .	37	
IBGHs(C)	42 <sup>†</sup>	
Medical store depots .	54 <sup>†</sup>	4
Masseuse IGHs(C)	31 <sup>†</sup>	
IBGHs(BT) .	67	
Garrison hospitals ..	25	7
Radiographers .	26	2
Laboratory assistants .	20	18
Storewomen ...	118 <sup>†</sup>	111
Kitchen supervisors	138 <sup>§</sup>	2
	<hr/>	<hr/>
	862	191
* Liable for service ex-India	58	
† Liable for service ex-India	127	
‡ Liable for service ex-India	42	
§ Liable for service ex-India	50	

*Telephonists* . In February 1944, sanction was given for the employment of WAC(I) as telephonists in base or garrison military hospitals with an authorised bed strength of 400 beds and over on a scale of one per hospital. At the same time it was also decided that clerical establishments in headquarters and static medical unit formations might be filled by them depending solely on their availability.

*Mess Secretary* A mess secretary (officer in the rank of 2nd subaltern WAC(I), ranking as 2nd lieutenant) was appointed on 3 January 1944, for the IAMC officers mess at No 2 Training and Depot Centre, Lucknow. On 21 November 1944, sanction was also given for the appointment of the following staff for the three messes at the Army Medical Training Centre, Poona

Junior Commander	1
Subalterns or 2nd Subalterns	2
Sergeants	3

*Optician* 'Optician' was not recognised as an employment for WAC(I) members. However, one WAC(I) who happened to be a qualified optician was appointed as a special case at No 1 Subsidiary Spectacle Centre against an IAMC havildar's vacancy, in the rank of sergeant, in May 1944.



## CHAPTER VII

# The Indian Hospital Corps

### EXPANSION OF THE IHC/IAMC

The rank and file of the medical services originally included the Army Hospital Corps and the Army Bearer Corps and subordinate personnel of the Indian Station Hospitals. On 1 June 1920, these three elements were combined to form the Indian Hospital Corps<sup>1</sup>.

On the outbreak of war the strength of the IHC was 8,645, which included 4,104 IORs and 4,541 NCs(E). There was also an authorised reserve of 2,300 ambulance section personnel and 1,222 nursing section.

The corps was organised in four companies ; No. 1 at Rawalpindi, No. 2 at Lucknow, No. 3 at Poona and No. 4 at Quetta, catering respectively for Northern, Eastern and Southern Commands and Western (Independent) District, with a record office at Poona.

### REORGANISATION OF THE IHC/IAMC

The first reorganisation of the IHC took place in September 1939, when the war organisation that was proposed in 1937, was enforced. No. 3 Company and the Record Office were combined to form the depot with a training wing and training wings were also formed at No. 1 and No. 2 Companies.<sup>2</sup>

The sanctioned establishment of the depot and each of the companies, on the basis of a monthly output of 44 IORs and 41 followers by the former and 78 IORs and 44 followers by the latter, was as follows —

#### *Depot*

Officer commanding (lieut -colonel or major)	.	1
Second-in-command	..	1
Assistant surgeon (WO)	.	1
VCOs	.	8
Havildars	.	14
IORs	.	216
		(includes 132 recruits and reinforcements)
Followers		41
Temporary personnel (cooks, sweepers etc )		15

#### *Training Company*

Commandant (major)	1
Assistant surgeon (WO)	1
VCOs	6

<sup>1</sup> For early history see Appendix XV For training also see page 213 <sup>2</sup> F/Z-22303/H(M).

Havildars	11
IORs	302
	(includes 242 recruits and reinforcements)
Followers	44
Temporary personnel	15

These training establishments were quickly found to be quite inadequate. In September 1940, a conference of the company commanders was held at Delhi with a view to finding ways and means of rapid expansion. This led to the expansion of the existing training wings at the depot and Nos 1 and 2 Companies<sup>3</sup> and the formation<sup>4</sup> of a training wing of approximately half the size of the others in No 4 Company, Quetta<sup>5</sup>. With this increase it was estimated that the monthly output of trained men would be 38 of the clerical section, 70 of the store section, 269 of the nursing section, 437 of the ambulance section and an adequate proportion of NCs(E). To avoid an undue increase in the size of the training wings it was further decided that personnel of the general section should be 'farmed out' for training to such military hospitals as could accommodate them.

Early in 1941, it was estimated that additional requirements for the year would amount to approximately 21,000.<sup>6</sup> To provide for this increasing demand, it became necessary to reorganise the IHC. Further, it was found from experience that there were certain disadvantages in having the record office combined with the depot. Also, owing to the absence of any separate headquarters for the corps other than the depot, supervision and centralisation of control was not possible. An organisation with a headquarters for the corps, under an officer senior to all other commanders, could ensure better central control, greater efficiency and smoother working. It was also considered that in view of their size the companies should be changed into battalions.

Consequently in May 1941, a corps headquarters, consisting of a personnel section and a records and accounts section, was created,<sup>7</sup> and Nos 1, 2 and 4 Companies became Nos 1, 2 and 4 Battalions and the depot became No 3 Battalion. Each battalion was divided

<sup>3</sup> The additional establishment authorised for existing training wings was as follows —

	<i>The depot</i>	<i>The training wing</i>	<i>Total increase</i>
Subedar	1		1
Jemadar	2	2	6
Havildars	6	3	12
IORs	103	88	279

<sup>4</sup> The establishment of the training wing at No 4 Company, Quetta was as follows —

Officer commanding	1
VCOs	3
Havildar major and havildars	5
IORs	65
Reinforcements and recruits	
IORs	494
General section (followers)	109

<sup>5</sup> F/Z-21580/H(M)

<sup>6</sup> F/Z 22303/H(M)

<sup>7</sup> F/Z 22303/H(M)

into a headquarters and depot company and a training company. Additions were made to the administrative and training establishments, involving a total increase of a colonel IMS (to command the headquarters), a major or captain, four captains or subalterns as adjutants, four quartermasters, and a CGO. The rank of subedar-major, which had not previously been attainable in the IHC was also introduced for the senior VCO in each of Nos. 1, 2 and 3 Battalions. Other increases were four education jemadars; three duty jemadars, two jemadar head clerks and twenty-two havildars. A decrease of four subedars and four jemadar assistant surgeons was also effected. Many of the appointments had to be filled by combatant officers, owing to the acute shortage of medical officers.

A training conference of the battalion commanders was held at Simla in July 1941, with a view to accelerating the training period of recruits.<sup>8</sup> Another conference was held at the Headquarters Southern Command in October 1941, to find ways and means of training large numbers of VCOs and NCOs for duty both in the staff of the battalions and in medical units. This resulted in the formation of the IHC, VCOs and NCOs School at Poona in January 1942.

Demands for overseas reinforcements continued to be higher than anticipated. By the end of 1941, it was estimated<sup>9</sup> that by October 1942, the additional requirements would amount to 38,256.<sup>10</sup> It became apparent that the training staff of the battalions was insufficient to cope with the intensive training required to be carried out, and that the existing sanctioned output was inadequate. It became necessary to increase the number of recruits under training and to reorganise the corps again. Consequently, the following changes were sanctioned on 10 February 1942:—

- (i) IHC battalions were reorganised into battalion headquarters, training wings and depot wings
- (ii) Training wings were expanded and further organised into four companies in each of the training wings of Nos. 1, 2 and 3 Battalions and three in the training wing of No. 4 Battalion.
- (iii) Depot wings were organised into headquarters companies and depot companies. The latter were to hold the reserve of trained men. It was estimated that the minimum reserve margin of trained personnel in each battalion would be equivalent to one month's output

<sup>8</sup> K/1/22/H(M)

<sup>9</sup> This was based on the following calculations -

	IORs	NCs(E)
Required for new units	12,000	11,000
Wastage at 2 per cent	2,880	2,640
Wastage at 2 per cent on commitments in India	1,105	1,988
Reinforcements for overseas at 4 per cent	3,562	3,081
Total commitments	19,547	18,709
Monthly average	1,629	1,559

<sup>10</sup> F/Z-24529/H(M).

- (iv) The staff of Headquarters IHC and the battalions was increased
- (v) The total recruit establishment of the battalions was fixed at 6,434 IORs and 2,829 NCs(E)

It was estimated that these changes would increase the monthly output of trained recruits to 1,320 IORs and 1,134 NCs(E) <sup>11</sup>

After this no major changes occurred during 1942. During the year special difficulties of providing personnel were encountered owing to the combination of a heavy programme of raising medical units and the emergency created by the evacuation from Burma. On 13 October 1942, 'Battalions IHC' were redesignated as 'Training and Depot Centres IHC'. 'Training Wings' and 'Depot Wings' became 'Training Battalions' and 'Depot Battalions' and 'Battalion Headquarters' were renamed 'Centre Headquarters' <sup>12</sup>

*Formation of Administrative Headquarters, IAMC* On the transfer of the IHC to the IAMC the establishments of the Headquarters IAMC and the training and depot centres were again revised on 14 May 1943 <sup>13</sup> Headquarters IHC was redesignated as Administrative Headquarters IAMC. The staff and establishment of the headquarters and the training and depot centres were substantially increased. The commandant <sup>14</sup> of the Administrative Headquarters, IAMC, was directly under GHQ and reported to the DMS on all matters affecting WOs, VCOs, IORs and NCs(E) of the IAMC, training and depot centres IAMC and IAMC officers under training in these centres. In June 1943, the rank of the officers commanding, training and depot centres IAMC was upgraded to colonel and the appointment was designated as 'Commandant'.

With the amalgamation of Baluchistan and Sind Districts in the North Western Army, the necessity for a separate training and depot centre, IAMC, at Quetta no longer existed. Moreover difficulties had been experienced in providing adequate accommodation because of the distance of Quetta from the Administrative Headquarters IAMC. Consequently the unit was disbanded in February 1944 <sup>15</sup>. All recruits under training were transferred to No 1 Training and Depot Centre, IAMC, Rawalpindi. Personnel on the strength of the centre were absorbed into the existing authorised

<sup>11</sup> F/Z 24529/H(M)

<sup>12</sup> IAO 2414/1942

<sup>13</sup> F/26 7/H(M)

<sup>14</sup> The following duties of the commandant were laid down —

- (a) General supervision of Records and Accounts sections and Depot Administrative Headquarters IAMC
- (b) General supervision and co ordination of administration of IAMC training and depot centres and the training carried out therein
- (c) Control of all promotions to the rank of VCOs in the IAMC and promotions of jemadars and subedars to higher ranks
- (d) Transfer of personnel between training and depot centres
- (e) The ordering from training and depot centres of personnel required for newly raised medical units and reinforcements

<sup>15</sup> F/2641/H(M)

establishments<sup>16</sup> of the remaining three centres.<sup>17</sup> At the same time No. 3 Training and Depot Centre originally at Poona, moved to Deolali. The Record Office in Kirkee then moved into Poona as part of the Administrative Headquarters, IAMC.

The IAMC training and depot establishments were finally sited as follows :—

No 1	Rawalpindi
No 2	Lucknow
No. 3	Deolali
Administrative Headquarters IAMC with Depot, Record and Accounts Sections	Poona
IAMC, VCOs and NCOs School	Kirkee

#### IHC/IAMC ADMINISTRATION

One IHC battalion was located in each command *i.e.* No. 1 in Northern No. 2 in Eastern, No. 3 in Southern and No. 4 in Western (Independent) District. Each battalion had as its normal function the supply of IHC personnel to the medical establishments within the command and their administration. With the reorganisation of Armies/Command in April 1942 it was not possible<sup>18</sup> to adhere to the existing system of administration, for the growing needs of the Eastern Army had to be adequately met.<sup>19</sup>

It was, therefore, decided that IHC battalions (later designated as training and depot centres) should continue to administer their former command areas, irrespective of the new boundaries. The administrative organisation was as follows :—

North Western Army (less Baluchistan District)	[ No. 1 Battalion
Lahore District (Central Command)	
Eastern Army	[ No 2 Battalion
Lucknow and Meerut Districts (Central Command)	
Southern Army, Mhow and Jubbulpore Independent Areas (Central Command)	[ No. 3 Battalion
Baluchistan District (North Western Army)	[ No 4 Battalion
Sind District (Central Command)	

<sup>16</sup> See Government of India, War Department letter No 2627/1/DMS 1(d) dated 14th May 1943 as amended by Government of India, War Department letter No 2627/7/DMS 1(d) dated 10th January 1944 [A/7/53/H (M)]

<sup>17</sup> F/2627/H(M)

<sup>18</sup> (i) There was no IHC battalion in the newly constituted Eastern Army

(ii) There were two battalions in North Western Army with a smaller administrative area than the former Northern Command and Western (Independent) District

(iii) Large numbers of personnel then in the new Central Command and formerly belonging to Nos 1, 3 and 4 Battalions would have to be transferred to No 2 Battalion. Further if the battalion had to continue to administer Eastern Army area as well, it would have become a very large area (Central Command and Eastern Army both)

(iv) Further constructions of new buildings were involved.

<sup>19</sup> F/2553/H(M)

## RECRUITMENT TO THE IHC LATER IAMC

Recruitment to the IHC was undertaken by the Army recruiting organisation. Due to the lower standards required and to the terms of service offered, the IHC recruits in the beginning were mainly drawn from illiterate classes and were often selected from those considered unfit for the other arms of the service. It was soon realised that the work of the IHC was of a highly technical nature. The standards, categories, terms and conditions of recruitment were subsequently considerably improved.<sup>20</sup> Priority had to be given for the intake of certain categories of the IHC/IAMC other ranks to form a pool to meet emergency expansions of hospitals which frequently became necessary due to unforeseen circumstances.

## PROMOTIONS, RANKS, PAY AND PENSIONS—IHC

With the marked increase in the strength of the IHC, additional promotions to the VCO ranks had also to be considered. The inclusion of duty jemadar in the war establishment of field ambulances gave fair chances of promotion to VCO ranks and greatly reduced the number of representations and complaints from the IHC personnel serving in India or overseas. Promotion to the rank of jemadar was open to all sections of the IHC but as a general rule ambulance section personnel were promoted. The authorisation of a duty jemadar for all military hospitals of 400 beds and over further increased the chances of promotion for the nursing section personnel. In the case of the clerical and stores sections, however, the chances of promotion were very limited. A notable day for the corps was, when in 1942, one of the VCOs, who had joined as a sepoy clerk was promoted to a commissioned rank of lieutenant and employed as a company officer. Soon this was followed by the promotion of one at each of the three big centres.

*Ranks.* In September 1942 the authorised scale in different ranks in IHC battalions was as follows —

Subedar major	One per IHC battalion except No 4 and one for IHC, VCOs and NCOs School
Subedar	One per training wing of each IHC battalion and two for IHC, VCOs and NCOs School
Jemadar adjutant	One per IHC battalion
Jemadar education	Two per IHC battalion
Jemadar clerk	One per IHC battalion, one for Headquarters, IHC, Kirkee and one for the Medical Directorate
Jemadar quartermaster	One per IHC battalion
Jemadar duty	Authorised for field ambulance and general duty in IHC battalion and military hospital of 400 beds and over
Havildar major	Two per IHC battalion (including one for training wing of each IHC battalion)

<sup>20</sup> See AI(I) 114/1943 as amended from time to time

Havildar	}	These ranks were held by ambulance and nursing section personnel only. All clerical and store section IHC personnel were havildars, grade I, grade II and grade III.
Naik		
Lance-naik		
Sepoy		

*Pay* : The first improvement in pay was made in 1940, in order to attract a better type of recruit. Increased rates<sup>21</sup> of pay were authorised for IORs and NCs(E) and deferred pay at the rate of one rupee per month was introduced for IORs. Deferred pay had not previously been admissible.

During 1941, the rates of pay of VCOs and IORs were brought to the level of the infantry rates, and the IHC derived further benefit from this measure.<sup>22</sup> The pay of all NCs(E) throughout the Army was also standardised at a basic rate of Rs. 15 per month with trade pay in accordance with the group classification and grades. Ward servants, a category of NCs(E) peculiar to the IHC, were also granted the basic rate of Rs. 15 with trade pay for the three grades of category.<sup>23</sup>

In 1942, deferred pay for IORs was increased to Rs. 3 per month. It was also authorised for NCs(E) at the rate of Re. 1 per month. This benefited all arms of the service, but particularly affected the IHC, with its large number of NCs(E).<sup>24</sup> During the year, the pay of IORs and NCs(E) was further increased by Rs. 2 thus giving sepoy a basic pay of Rs. 18 per month and NCs(E) a basic pay of Rs. 17 per month.<sup>25</sup>

The position regarding pay by the end of 1942 was that the IHC personnel of the combatant sections enjoyed the same rates of pay, deferred pay and proficiency pay as the corresponding ranks in the infantry, and personnel of the general section [NCs(E)] had the rates applicable to their trade and grade, which were of general application. In addition, nursing section personnel, ward servants and sweepers were eligible, when employed on certain special duties, for extra duty pay at the rate of two annas per day.

IHC pension rates were also brought up<sup>26</sup> to the level of infantry rates in 1942 and a reduction of the qualifying period for pension was sanctioned to bring the IHC into line with the infantry when the IAMC was established.

NCs(E) were at one time given 'line allowance' in lieu of rations, but later they were given rations on the combatant scale, and messing allowance on the same scale as for IORs

NCs(E) were not included in any Army education scheme, but as exception had been made in the case of ward servants, education allowance on the same scale as for IORs was made admissible for them in June 1942.

<sup>21</sup> AI(I) 146/1940

<sup>23</sup> AI(I) 289/1941

<sup>25</sup> AI(I) 352/1942

<sup>22</sup> AI(I) 96/1941.

<sup>24</sup> AI(I) 221/1942

<sup>26</sup> AI(I) 107/1942

The following is a summary of the changes in the rates of pay authorised during 1940-42<sup>27</sup>

	Pre War	1940	1941 (g)	1942	
Subedar major	(1)	(1)	250(d)	250(d)	
Subedar	105		130(c)	130(c)	
Jemadar	65		75(f)	75(f)	(l)
Havildar	19	24 (c)	25(c)	27(i)	(m)
Naik	15	21 (c)	22(c)	24(i)	(n)
Sepoy	11	14-8 (c)	16(c)	18(i)	(o)
Cooks grade I and II	14	(b)	15(h)	17(h)	(k)
Cook	13				
Assistant cook	10				
Water carrier grade I	12	18			(o)
Water carrier grade II	9				
Ward servant grade I	13				
Ward servant grade II	11				
Ward servant grade III	9				
Washerman grade I	15	20			(o)
Washerman grade II	12	17			
Sweeper grade I	12	(b)			
Sweeper grade II	9	(b)			(o)

- (a) Rank not introduced until April 1941  
 (b) New rate of basic pay Rs 9 with quinquennial increments of Re 1 to the total of Rs 13  
 (c) Plus deferred pay of Re 1 per month  
 (d) Includes Rs 50 personal allowance  
 (e) Annual increment of Rs 10 to Rs 160  
 (f) Annual increment of Rs 5 to Rs 100  
 (g) Rates brought up to infantry level  
 (h) Plus trade pay at appropriate rates for different grades, i.e. —

Cooks—up to twelve annas per day

Ward servants at the rate of two, three and four annas per day

Washerman at the rate of six and eight annas per day

- (i) Plus deferred pay at the rate of Rs 3  
 (k) Plus deferred pay at the rate of Re 1  
 (l) Extra duty pay —

Jemadar adjutant	Rs 13
Jemadar clerk	„ 60
Jemadar quartermaster	„ 35
Education jemadar	„ 32

- (m) Clerical and stores section personnel were now all havildars in three grades (Grade I, II & III) with grade pay at Rs 60, 50 and 38. They were formerly paid pay of rank with grade pay at rates applicable to other arms  
 (n) Nursing section personnel qualified for additional nursing pay at Rs 2 after 12 months, Rs 4 after 4 years and Rs 5 after 7 years

<sup>27</sup> AI (I) 93/1941 118/1941 289/1941, 91/1942



- (o) Extra duty pay at two annas per day was admissible to personnel employed on certain special duties. Proficiency pay was as for other arms.

### *IHC/IAMC*

The formation of the IAMC led to a further improvement in the terms of service, chiefly of the nursing section. Pay was considerably increased and nursing pay up to Rs. 32 per month was introduced. Male nurses, qualified for civil hospitals, were recruited as jemadars and a special class of educated men was enrolled as 'specialist improvers' on special terms.

Other sections, *e.g.*, clerical, stores and ambulance, also benefited by the introduction of additional appointments of VCOs in medical establishments.

Persons transferred from the IHC to the nursing section, IAMC, received trade pay of Rs. 15, 10 and 5 for grade I, II and III respectively instead of nursing pay which was Rs. 5, 4 and 2.

Future recruits were to receive Rs. 18 per month as training allowance in addition to the pay of the rank until qualified for trade pay which was to be Rs. 60, 50, and 32 for grades I, II and III respectively.

The specialist improvers were to receive Rs. 32 per month as a training allowance in addition to the pay of the rank until qualified for trade pay which was to be Rs. 60, 50, and 38 for grades I, II and III respectively.

Appointments with the rank of VCO were introduced on a liberal scale into the nursing section and qualified male nurses could be jemadars at Rs. 75 per month plus Rs. 60 trade pay; promotion to the rank of subedar and subedar-major was also opened to them.<sup>28</sup>

The difficulties encountered in the expansion of the IHC were mainly of two kinds—deficiencies and training of personnel. There had not been a period, with the exception possibly of a very short one prior to the end of 1940, when sufficient personnel in all categories had been available at the same time. In some categories of personnel, shortages had sometimes been acute. The pre-war strength of the IHC was very small. The reserves were immediately called up for the mobilisation of field units. Of this reserve only a portion was available, the actual number who had reported by 1 January 1941, being 1,317 of the ambulance section and 916 of the nursing. Unfortunately these reservists were not uniformly satisfactory. A large number of them was found to be physically unfit for field service, and the nursing section personnel were found to be quite ignorant of their duties and so much below average in respect of intelligence that they could not be trained in a short time. Thus a considerable number had to be discharged and a large number employed on static and unimportant duties in company headquarters. Soon after, there was

<sup>28</sup> F/2627/H(M), AI (I) 114/1945

an acute shortage in many categories of personnel. Many of the experienced men were sent overseas, and it was difficult to find suitable persons for employment in training establishments. A 'milking scheme' was, therefore, introduced to get back a proportion of men with pre-war service from the units in the Middle East and Iraq.<sup>29</sup> Garrison hospitals on a full establishment but without a full complement of patients were also asked to spare some personnel to complete the establishment of field medical units.

A deficiency of clerical personnel occurred in 1941, and this subsequently increased in spite of the reductions effected in war establishments. Sweepers at various times, particularly in the summer of 1942, were in very short supply against large demands. Here again reductions were effected in war establishments and the supply was improved by the tapping of new sources, but there was never a surplus. To make up the demand for sweepers, these were grouped separately into 'wet' and 'dry' sweepers. The 'dry' sweepers could be enrolled comparatively easily but 'wet' sweepers were most difficult to get. Washermen and barbers were other categories in which supply had never kept pace with the demand. Similarly there were grave deficiencies in cooks for British troops. Every effort was made to cope with the deficiencies in the categories in which they occurred by revising and reducing establishments wherever possible, by the use of locally engaged civilian personnel in static units and by the reclassification of surplus personnel in some categories into others where deficiencies were most marked. But these measures were not sufficient, and it was not until the formation of the IHC, VCOs and NCOs School in January 1942 that the problem could be solved.

Shortage of officers had always been a difficulty, and, in the absence of an adequate number of medical officers for all commitments, most appointments in connection with training had to be filled by combatant officers.

On the formation of the IAMC in April 1943, the IHC ceased to exist, all of its personnel being transferred to the new corps. War establishments of medical units were completely revised, and large increase was made in the number of VCOs, and increased opportunities of promotion for the personnel of clerical, stores, nursing and ambulance sections were provided.

Provision was also made for direct recruitment as VCOs of radiographers, laboratory assistants and male nurses, and the nursing section was made more attractive by the offer of improved terms for recruits of some standard of education.

From the experience gained the training programmes were revised in early 1944. An ADMS Training had been appointed<sup>30</sup> at GHQ in July 1943, whose duty it was to co-ordinate the technical training in the corps with the basic military training which had to

<sup>29</sup> A/4/18/H(M)

<sup>30</sup> A/3/27/H(M)

be imparted under the control of the Director of Military Training (DMT) GHQ. Arms training became necessary for the combatant sections of the corps.

Specialist training was introduced and nursing section personnel could do special training as mental nursing orderlies, special treatment orderlies, or operation room attendants. Graduates in science with physics and chemistry were taken as jemadars and trained as radio-graphers and laboratory assistants.

By the middle of 1944 senior nursing orderlies could appear for special nursing examinations, which were conducted by specially appointed matron examiners who visited the various selected training hospitals. These training hospitals had specially trained medical officers who functioned as technical training officers.

The following figures show the expansion of IHC/IAMC.—<sup>31</sup>

<i>Date</i>	<i>Strength</i>
1 October 1939	10,010
1 April 1940	12,152
1 October 1940	21,305
1 April 1941	31,365
1 October 1941	49,011
1 April 1942	54,390
1 October 1942	71,729
1 April 1943	86,268
1 October 1943	91,312
1 April 1944	1,14,170
1 October 1944	1,32,337
1 April 1945	1,41,650
1 October 1945	1,47,100

Despite the great limitations in training and difficulties in obtaining suitable men the IHC/IAMC developed into a very efficient and disciplined body of men who gave an excellent account of themselves, both in the forward and base areas. Their devotion to duty and hard work won for them 22 IDSMs, 38 MMs, 2 IOMs, 5 BEMs and 438 Mentions in Despatches. Their high morale in the face of extreme danger is very well illustrated by the following observation made in a letter<sup>32</sup> of the officer commanding the Hospital Ship *Karapara*, which was bombed in Tobruk harbour on 4 May 1941.

“Abroad, it certainly felt pretty bad. It felt as though the ship was repeatedly lifted up bodily and dropped, in addition, flying debris and pieces of bombs were a real danger to us all. One lighter calibre bomb hit us abaft the funnel and burst between the engines and boilers. It wrecked six of the sisters’ cabins, completely wiped out the senior stewards’ cabins and the WOs galley, broke all the water connections from the engine-room,

<sup>31</sup> Statistical Review of personnel, Army of India, Vols I and III and Strength Returns of the Indian Defence Services

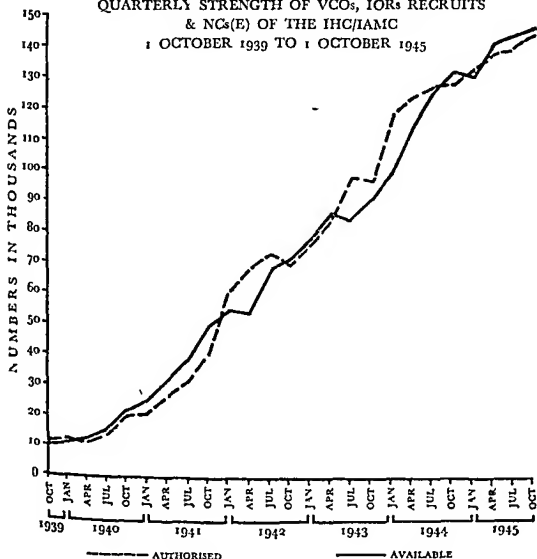
<sup>32</sup> F/6926/H(M)

wrecked the steering gear and set the ship on fire. With all water connections gone, the fire was a serious matter. In addition, we did not know at the time whether we were sinking or not.

The staff were splendid throughout. The RAMC orderlies and the whole of the IHC personnel were likewise on the job without faltering the whole time. The IHC were splendid throughout and carried out all orders without the slightest hesitation. In fact, they seemed to enjoy putting out the fire—at no small risk to themselves—and in helping to haul up the ship's life-boats which had all to be lowered when it was expected that we should have to be beached.

To conclude, I can only say that I could not have had a better crowd to work with, either my own staff or ship's officers."

QUARTERLY STRENGTH OF VCOs, IORs RECRUITS  
& NCs(E) OF THE IHC/IAMC  
1 OCTOBER 1939 TO 1 OCTOBER 1945



atmosphere, became more favourable. Later it was finally abandoned and the section was also disbanded in August 1943.<sup>5</sup>

In pursuance of the recommendation made by the conference of AMOs, held in July 1941, and with a view to enlisting the co-operation of the provincial AMOs and the medical profession in the matter of recruitment, recruitment committees were set up in each province, consisting in the major provinces of the surgeon general/inspector general of civil hospitals as president, two other officials and in the case of interviews of graduates, two graduate members of the civil medical profession, and in the case of licentiate, two licentiate members. In other provinces the committee was made up of the inspector general of civil hospitals, one official and one member of the civil medical profession, graduate or licentiate, according to the candidates to be interviewed.

The functions of these committees were advisory and included the following :—

- (i) to give publicity to the terms and conditions of service ,
- (ii) to bring to the notice of the central committee anything tending to discourage or prejudice recruitment, and generally to make suggestions ,
- (iii) to interview candidates for commissions in the IMS. When the applications were completed, candidates were called up for interview by the provincial recruitment committee. Candidates selected by the committee were then issued with provisional appointment letters by the provincial AMOs together with orders to join for training at one of the training centres

Cases of the following categories were, however, submitted to the office of the DGIMS for consideration by the Central Selection Board :—

- (i) Specialists.
- (ii) Candidates possessing higher licentiate qualifications and those possessing MBBS of the Mysore and Osmania Universities and foreign medical qualifications.
- (iii) Women doctors.
- (iv) Candidates who indicated their choice to serve in the RIN and IAF as first preference.
- (v) Candidates who had been previously rejected for military medical service.
- (vi) Ex-temporary and short service commissioned officers
- (vii) Candidates over forty-five years of age
- (viii) Evacuees.

On the formation of the IAMC in April 1943, separate provincial selection boards were formed in each province, as well as in Hyderabad, Central India and Bangalore, consisting of the AMO,

or chief medical officer as chairman, one military member, one member representing the medical schools, preferably a principal, and up to three non official licentiates of standing, for the selection of suitable medical licentiates for commission in the new corps. The functions of these boards were similar to those of the provincial recruitment committees and the procedure after selection was exactly similar, except that doubtful cases were referred to the Central Selection Board in the Medical Directorate.

A very comprehensive organisation was thus set up, both at the centre and in the provinces, for the purpose of inducing medical men in India to join the armed forces. On the whole the organisation functioned successfully, although for various reasons the success in respect of the licentiates was not as gratifying as in the case of the graduates. This was partly due to the fact that many of them employed in the provincial or public services could not be spared for military service. Also, the increased prospects of private practice during the war years attracted some and prevented their offering themselves for employment with the Army. So far as recruitment to the IMS was concerned, by 1 July 1945, 4,166 graduates had volunteered for service and of these 3,432 had been accepted, that is 24.17 per cent of the total number of medical graduates under forty-five years of age registered in India. By the same date 2,659 licentiates had been recruited for service in the Army, 1,375 to the late IMD(IC) and 1,284 to the emergency commissions in the IAMC, that is 12.13 per cent of the total number of licentiates under forty-five years of age registered in the country. In addition to those actually serving with the fighting forces, a large number of doctors were also recruited for other essential war-time services, and in many instances it was only the employment of these doctors that enabled other younger and physically fit men to be released for duty in the Army medical service.<sup>6</sup>

#### RECRUITMENT TO THE IMS

Recruitment to the IMS from 1855 onwards, had been made through a competitive examination held in the United Kingdom.<sup>7</sup> In July 1915, the Secretary of State for India decided to discontinue these examinations during World War I. Such appointments as were required to meet the urgent needs of the service were made by nomination by the Secretary of State who was assisted by a selection committee consisting of six members. From 1920 onwards British officers were recruited by the Secretary of State and the Indian officers were appointed by him on the recommendation of the Selection Board which was constituted in India in September 1919. In both cases selection was by interview and officers were appointed as Kings Commissioned Officers. From January 1935, however, Indian

<sup>6</sup> Unless otherwise stated the material for this Chapter has been taken from A/5/14/H(M)  
<sup>7</sup> Crawford, D G (1914) *A History of Indian Medical Service*, London Thacker

officers were granted permanent commissions as Indian Commissioned Officers in His Majesty's Indian Land Forces. Thus in 1939 the service consisted of Indian and British Kings Commissioned Officers and Indian Commissioned Officers<sup>8</sup>

On appointment to the IMS European officers were required to attend such courses of instruction as the Secretary of State might direct either in the United Kingdom or in India, and to pass the prescribed examinations. The appointments of the officers who failed to attain a reasonable standard of proficiency in these examinations or who were considered unsuitable for commission at the conclusion of the course were terminated. Up to the end of three years from the date of reporting for duty in India, the officer was on probation. During this period he was required to pass a retention examination as well as the prescribed language test, *viz.* higher standard Urdu. It was necessary for him to perform military duty for a specified period in case he wished to be transferred to the civil side.

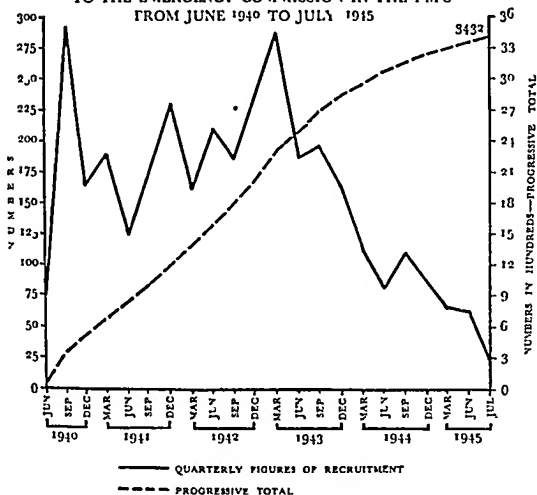
Appointment of Indian officers to permanent commissions in the IMS was made from among the short service commissioned officers. On appointment they were required to undergo a preliminary training as general duty officers. Within a period of two years from the date of the grant of a permanent commission *i.e.* up to the completion of the seventh year of total service, officers were required to pass a retention examination. An Indian officer not sufficiently conversant with Urdu was also required to pass the higher standard Urdu examination within this period. A satisfactory report after three years of service was necessary before the award of a permanent commission was confirmed.

The Army in India Reserve of Officers (Medical) consisted of released temporary or short service commissioned IMS officers who had to join the reserve under the terms of their original agreement, together with civilian officials of gazetted status and private medical practitioners.<sup>9</sup>

With the commencement of the war, the necessity of increasing recruitment involved some change in the existing system. On 6 December 1939, it was decided that recruitment to permanent and short service commissions in the IMS and to the AIRO(M) should cease for the duration of the war and that the additional medical officers required should be recruited by granting emergency commissions in the IMS.<sup>10</sup> Actual recruitment under this system commenced in June 1940, and the target was fixed at 100 officers per month. During the first four months *i.e.* June to September 1940, there was no difficulty in recruiting the required number from among the applicants who had been kept on the waiting lists since the declaration of the war. But in subsequent months this rate of recruitment could not be maintained and it became necessary to take other steps to improve the intake of doctors in order to keep pace with the very rapid expansion of the Army.<sup>11</sup>

<sup>8</sup>A/2/13/H(M)<sup>9</sup>A/2/13/H(M)<sup>10</sup>A/5/14/H(M).<sup>11</sup>A/6/39/H(M), A/6/8/H(M).

**QUARTERLY FIGURES OF RECRUITMENT  
TO THE EMERGENCY COMMISSION IN THE IMS  
FROM JUNE 1940 TO JULY 1945**



The most important initial step was the holding of a conference in July 1941, to discuss the question of recruitment to the IMS and to make recommendations for its improvement. This conference was attended by eminent members of the medical profession from all parts of the country and provincial AMOs. Amongst others, the conference made the following recommendations —

- (i) More publicity should be given to the terms and conditions of recruitment with special emphasis on the absence of discrimination between the terms and conditions of recruitment of the Indian and European officers
- (ii) Recruitment should be decentralised and recruitment committees should be set up in all the provinces
- (iii) A Central Advisory Board of recruitment consisting of five members should be constituted
- (iv) A minimum gratuity of Rs 2,000 should be guaranteed for one year's service in the Army
- (v) Antedate for professional experience up to a maximum of five years should be granted in addition to eighteen months antedate for hospital appointments and higher qualifications
- (vi) A certain number of permanent commissions should be reserved for the IMS(EC) officers with approved service



In addition to the above, the conference made two specific recommendations which marked a departure from the previously accepted practice *viz* .—<sup>12</sup>

- (i) Enrolment of 300 civilian graduates for duty in military stations to release commissioned medical officers for more active employment, and
- (ii) the recruitment of graduates to the IMS(EC) with liability for service within Indian geographical limits only.

Apart from giving effect to the above recommendations the terms and conditions of service were improved and important concessions were offered from time to time to potential recruits. Further, to supplement the IMS general service recruitment the following supplementary schemes were adopted :—

- (i) Recruitment of European doctors to the IMS(EC).
- (ii) Grant of emergency commissions in the IMS to the members of the IMD(BC) who had registrable qualifications.
- (iii) Recruitment of railway doctors.
- (iv) Recruitment of specialists to the IMS(EC) on special terms.
- (v) Recruitment of women doctors to the IMS(EC).
- (vi) Recruitment of IMS(EC) Class 'B' for service within Indian limits only.
- (vii) Recruitment of IMS(EC) officers for the RIN.
- (viii) Recruitment of IMS(EC) officers for the IAF
- (ix) Recruitment of CMPs (Graduates).

#### TERMS AND CONDITIONS OF RECRUITMENT TO THE IMS (GENERAL SERVICE)

The terms and conditions of recruitment of additional temporary IMS officers during the war were issued on 10 September 1939.<sup>13</sup> Under these terms, officers were granted short service commissions for periods of five years or for the duration of the war, whichever should be less. The rest of the terms were more or less the same as for short service commission officers of the IMS, except that the outfit allowance, leave, disability and dependents' pensions and gratuities were to be in accordance with the regulations for the AIRO(M).

#### REVISED TERMS

Revised terms, changing the basis of recruitment from 'short service' to 'emergency commissions' for the duration of the war and for so long thereafter as their services might be required, were issued on 6 December 1939, to which additions and alterations were made from time to time. These included —

<sup>12</sup> A/6/39/H(M)

<sup>13</sup> A/5/14/H(M)

(i) *Period of probation* With a view to bringing the terms and conditions of recruitment to the IMS(EC) into line with those for the Indian Army, the period of probation for IMS(EC) officers was raised from three to six months on 5 May 1940

(ii) *Railway warrants and travelling concessions* In June 1940, in response to a general feeling that candidates for emergency commissions called up for interview and medical examination by the DGIMS or the provincial AMOs should not be required to incur expenditure on journeys performed for these purposes, it was decided to provide free conveyance on railway warrants, which was changed to cash payment with effect from 27 August 1940. This procedure was again reversed in January 1943 when railway warrants were issued to candidates resident in India for their journey on first appointment, and the travelling allowance admissible was reduced by the cost of warrants at public rates. Candidates were also issued with railway warrants in connection with their interviews and medical examination

(iii) *Raising the age limit* Normally the age limit was fixed at thirty-two years. About the middle of the year 1940 there was an influx of applications from candidates over thirty-two years, who were otherwise suitable professionally. In July 1940, authority was, therefore, given to the selection boards to waive the age limit at their discretion in special cases. It was hoped that the relaxation of age limit coupled with wide publicity would attract a sufficient number of recruits to meet the estimated demand. However, the IMS Selection Board meeting on 3 February 1941, recommended that in order to cover special or exceptional cases, the age limit should be further raised to fifty years. Formal sanction for raising it from thirty-two to forty-five years was given on 21 November 1941, with discretion to the selection boards to relax it further in individual cases. In May 1942, the age limit was reduced from forty-five to forty on account of the alleged preponderance of middle aged men in the emergency cadre of the IMS, but on closer examination this was not found to be so. The age limit was, therefore, again raised to forty-five years on 21 November 1942.

(iv) *Addition to the list of approved qualifications for recruitment* On 15 July 1941, the Government accepted the recommendation of the Medical Council of India to recognise the MBBS degree of the Patna and Andhra Universities, with retrospective effect. The medical graduates of these universities were thus made eligible for the grant of emergency commissions in the IMS. Later on 16 July 1942, the MBBS degree of Rangoon University, and on 9 September 1942, those of the Mysore and Osmania Universities were also recognised.

As a war measure the Government of India also decided on 27 June 1942, to admit officers holding approved foreign qualifications. Each case was, however, considered on its merits in consultation with the Medical Council of India. Generally, these qualifications were the same as were recognised in 1940 and 1941 for temporary registration in the United Kingdom.

It was further decided as a war-time measure to admit candidates possessing higher licentiate qualifications to the IMS(EC). Such candidates were also accepted for temporary commissions during World War I but were permitted to serve only east of Suez. The higher licentiate qualifications which were accepted were announced in a press note issued on 8 July 1942, and included the following :—

- (a) Membership of the College of Physicians and Surgeons of Bombay (MCP & S)
- (b) Diploma of Medicine and Surgery, Madras (DMS).
- (c) Membership of the State Medical Faculties of the Punjab and the United Provinces (MSMF).
- (d) Membership of the State Medical Faculty of Bengal (MMF)

(v) *Nationality of fathers* : Initially a candidate whose father was of foreign nationality was not recruited. On 28 April 1943, this condition was waived.

(vi) *Outfit allowance* : The outfit allowance of Rs. 400 was raised to Rs. 533 in April 1941, on account of the increased cost of material. On 11 November 1942, it was further increased to Rs. 600 with retrospective effect from 1 January 1941, following a similar increase for officers of the Indian Army.

(vii) *Antedate of Commission* : On 28 May 1941, provision was made for the grant of antedate of commission not exceeding eighteen months in all to an IMS(EC) officer if :—

(a) he had held a previous hospital appointment or possessed higher medical qualifications, subject to the conditions which governed the grant of an antedate of commission to regular officers ; or (b) his experience in the practice of his profession was adjudged by the DGIMS to be such as to justify the grant of an antedate. The period of antedate was to count as commissioned service for increments of pay and promotion but not for gratuity.

The question of antedate was further considered by the IMS recruitment conference held in Simla in July 1941. This conference recommended that an antedate equal to half the number of years from the date of qualification to the date of appointment to IMS(EC), subject to a maximum of six years, should be granted to candidates who were considered suitable. It also recommended that this concession should be made applicable to IMS(EC) officers already in service. It was, however, finally decided to limit the antedate. It was not to be reckoned in periods of less than six months and the minimum antedate to be granted was one year, earned by two years' medical practice. This concession was to be in addition to any antedate which might be admissible to an officer on account of his special post-graduate qualifications and special hospital appointments except that a period spent in a hospital appointment was not to be counted twice in reckoning the total antedate admissible. Such antedate was to count for pay and promotion on the time, scale and

seniority in the service. A formal amendment of the terms and conditions of service was accordingly made on 3 January 1942.<sup>14</sup>

On 26 November 1942, it was also decided that in the case of an officer who had received his basic registrable qualifications outside India, the period of professional experience for the grant of antedate of commission was reckonable from the date of registration. This decision was to have retrospective effect from 21 November 1941.

(viii) *Gratuity* Before the war Indian officers of the IMS could retire on a gratuity of Rs 11,500 after completing one year's permanent service or six years' service from the date of first appointment as short service commissioned officers, up to and including their eleventh year of service. The amount of gratuity for an officer with twelve years' service and over was Rs 27,500.<sup>15</sup> With the institution of the emergency commission the basis of gratuity for the new cadre on release from Army service was fixed at the rate of one month's total emoluments for each year of Army service, broken periods, being reckoned at the rate of one day's pay for twelve days of service. The term 'pay' meant the total of all emoluments appertaining to the appointment held, namely basic pay, charge pay, specialist pay etc but excluding allowances not appertaining to the appointments held.<sup>16</sup>

This gratuity was not admissible to officers who might be granted permanent commissions, or to those who had a lien on civil government appointments, or who might obtain permanent government appointments on release. To compensate candidates for the loss of established practice, the following additional concessions were sanctioned on 24 December 1941: (a) Grant of Rs 2,000 to those who obtained their basic registrable qualifications before 1 January 1940. (b) Grant of Rs 1,000 to others.

(ix) *Advance of pay* An advance of pay not exceeding Rs 300 was admissible to candidates if selected in India, and equivalent to two months' pay if in the United Kingdom. The advance was recoverable in instalments on the basis of one third of an officer's pay.

(x) *Pay of civil government servants* On 20 May 1942, civil government servants who were granted emergency commissions and were allowed to retain a lien on their substantive appointments, were given the option to draw pay plus increment at civil rates, and when overseas or in field service areas in India, a compensatory allowance equal to one fifth of their civil pay, or Rs 10 per day, whichever was less, instead of Army rates of basic pay and overseas pay.

On 10 April 1943, the following further amendments were made to the terms and conditions of recruitment of IMS(EC) officers: (a) The period of previous commissioned service which counted towards pay, promotion and seniority in the service would not count twice in reckoning the antedate admissible. (b) A provision was made that those officers who had completed ten years' full pay service were

<sup>14</sup> A/5/14/H(M)

<sup>15</sup> L/6/23/H(M)

<sup>16</sup> A/5/14/H(M)

eligible for promotion to the rank of major. The period of ten years included previous full pay qualifying commissioned service and in addition any antedate granted under the rules.<sup>17</sup>

Recruitment to the general service cadre in the IMS(EC) up till July 1945 was 2,601.<sup>18</sup>

#### THE RECRUITMENT OF EUROPEAN DOCTORS TO THE IMS(EC)

The terms and conditions for the recruitment of European doctors to the IMS(EC) were issued on 8 October 1940. These provided for the grant of emergency commission in His Majesty's Land Forces, (as distinct from the Indian Land Forces) for which only those candidates were eligible who were British subjects of pure European descent. The terms were nearly the same as for the Indian IMS(EC) officers. Special provision, however, was made for the grant of pay for the period of voyage from the United Kingdom to India at RAMC rates and for passage concessions as for British service officers. The rates of outfit allowance and disability and family pensions, were in sterling. The candidates recruited ex-India were appointed with effect from the date of embarkation in the United Kingdom. In January 1942, these terms were revised and similar concessions as were given to Indian IMS(EC) officers were incorporated therein.

Under the Registration Ordinance which subsequently became the Registration (Emergency Powers) Act 1940, all European British nationals in India were required to register themselves for national service. This act was followed by the National Service (European British Subjects) Amendment Ordinance 1941. Under this Amendment Ordinance all European British subjects in India who were registered under the Registration Ordinance became liable for national service. DGIMS was authorised to call up all European British doctors residing in India for compulsory military service as IMS(EC) officers under this ordinance.

The recruitment of Europeans in India was started in January 1941, and up to 31 January 1945, 52 European doctors were recruited, out of about 125 who had been registered. About half the number of doctors who came under the National Service Act belonged to Bengal, Assam and Bihar. From this area only thirteen Europeans were recruited. The reason for this unsatisfactory recruitment was that the majority of these doctors had been classified as not available, as their employers did not readily agree to their release. In addition, up to January 1945, 114 European doctors were recruited in the United Kingdom, while 28 officers had been transferred from the RAMC to the IMS. Efforts to obtain more European IMS (EC) officers from the United Kingdom to supplement the indigenous resources had not proved successful and ultimately reliance had to

<sup>17</sup> The terms and conditions of service of the IMS officers which were in operation when the war ended are given in AI/(I)274/1944 as amended from time to time

<sup>18</sup> A/2/56/H(M)

be placed on European doctors who had joined the RAMC in the first instance and were then detailed for duty with Indian troops in India in lieu of IMS officers

#### THE GRANT OF EMERGENCY COMMISSION IN THE IMS TO IMD(BC)

Special terms and conditions of appointment of assistant surgeons of the IMD(BC) to emergency commissions in the IMS were issued in June 1941. These were the same as for private practitioners who were granted emergency commissions in the IMS except that disability pension was admissible at the same rate as for permanent Indian commissioned officers of the IMS plus service element of pension or gratuity under Pension Regulations.

These assistant surgeons were discharged from the IMD on the grant of emergency commissions in the IMS but their names were retained on the promotion roster of the department. They were eligible for promotion to commissioned rank as departmental commissioned officers in the IMD, in which event their emergency commission in the IMS was withdrawn and fresh commission in the IMD issued.

In order to ensure that the assistant surgeons IMD(BC) did not lose financially on the grant of emergency commissions in the IMS, provision was made in the terms of service on 1 November 1941, that on appointment in the IMS(EC) they would not draw less pay than that to which they were entitled at the time of their discharge from the IMD.

Up to 31 January 1945, 201 assistant surgeons IMD(BC) had been granted emergency commissions in the IMS.<sup>19</sup>

#### THE RECRUITMENT OF RAILWAY DOCTORS

Special terms for the recruitment to the IMS(EC) of medical graduates employed in state managed and company managed railways in India were issued on 6 October 1941. These terms<sup>20</sup> were generally the same as for private medical practitioners except in respect of the following matters —

- (i) *Transit pay* During the transit period a railway servant was granted the rates of pay and allowances that he drew as a railway servant on the date of his being relieved of his civil duties.
- (ii) *Passage account* Officers who were entitled to concessional passage in their railway appointments were allowed to receive these.
- (iii) *Provident fund and special contributions* Provident fund and special contributions were to be borne by the railway revenues but if the Defence Department paid any service gratuity to these officers at the time of their demobilisation, it was to be credited to the railway concerned.
- (iv) *Termination of service* An officer was to revert to his normal substantive appointment in the railway at any time after the end of the war.

<sup>19</sup> A/56/11(M)

<sup>20</sup> See AI(1) 274/1944 as amended from time to time

Terms and conditions of recruitment of these doctors were circulated to all medical graduates employed on the railways. However up to 31 January 1944, out of a total of 236 graduates employed by the railways only thirteen had joined the IMS(EC).

#### THE RECRUITMENT OF SPECIALISTS

The Government of India decided to offer a limited number of special emergency commissions to specialists among the civil medical practitioners possessing appropriate post-graduate medical qualifications and sufficient experience in certain special subjects. These officers were commissioned as lieutenants in the first instance but were granted the acting rank of major as soon as they held appointments in the authorised establishments.<sup>21</sup>

The initial pay of the specialists appointed in the IMS(EC) was Rs. 800 per month with overseas pay if admissible. In addition they received Rs. 100 per month as a specialist allowance. Other terms were the same as for the IMS(EC) officers.

Specialists were appointed on the recommendation of the IMS Selection Board. The medical category of these officers was required to be 'A' or 'B'. They were exempted from the preliminary military training and were not ordinarily available for administrative duties though they could be called upon to perform any of the duties of a military medical officer.

Recruitment to the specialist cadre was started in January 1942. Uptill 31 January 1945, only eighty-seven specialists were recruited.<sup>22</sup>

The terms for the appointment of specialists to the IMS(EC) for service within Indian limits were sanctioned on 9 February 1943. But it was not considered necessary by the military authorities to recruit them at that stage.

#### THE RECRUITMENT OF WOMEN DOCTORS TO THE IMS(EC)

Owing to the shortage of doctors the Secretary of State suggested on 24 June 1941, that employment of women doctors for duty at base hospitals on similar terms as for the RAMC, be considered. The suggestion remained under consideration for some months and after consultation with the Secretary of State in regard to various details the scheme for the Women's Branch of the IMS was announced on 13 January 1942. Their terms<sup>23</sup> and conditions of recruitment were sanctioned on 8 January 1942, and the service was formally inaugurated on 13 February 1942.

In the initial stages it was decided to recruit women doctors having special experience in oto-rhino-laryngology, radiology,

<sup>21</sup> See AI(I) 274/1944 as amended from time to time

<sup>22</sup> A/2/56/H(M)

<sup>23</sup> See AI(I) 274/1944 as amended from time to time

pathology, ophthalmology and anaesthetics only. This condition regarding possession of specialist experience by the candidates was, however, dispensed with in May 1942.

The terms of service were similar to those prescribed for male officers of the IMS(EC) and also closely followed those laid down for the recruitment of women medical practitioners to the RAMC in India. But women doctors were not to be commissioned, though they were given ranks equivalent to that of the IMS(EC) male officers and were paid accordingly. In order to bring the terms and conditions of service issued in India into line with those issued by the India Office in London, it was decided in October 1942, to grant emergency commissions to women doctors recruited to the IMS and to count their previous service in the RAMC for seniority in the IMS.

Up to the end of January 1945, 140 women doctors were recruited in India. In addition 48 had been recruited by the Secretary of State in the United Kingdom.<sup>24</sup>

On 28 August 1943, the terms and conditions of recruitment of women medical practitioners in the IMS for service within Indian limits were also sanctioned. No recruitment to this class was, however, made.

#### RECRUITMENT TO THE IMS(EC) CLASS B—SERVICE WITHIN INDIAN LIMITS ONLY

A separate cadre of emergency commissioned officers of the IMS for service in India only—IMS(EC) Class 'B'—was set up in June 1942, to attract medical men whom liability for general service had dissuaded from volunteering for Army service. Their terms and conditions of service were issued on 20 June 1942. These were the same as for the general service IMS(EC) officers except that officers for service within Indian limits were offered Rs 150 per month less at all stages and, furthermore, no provision was made for promotion beyond the rank of captain, nor were they to be given preference for permanent appointments after the war. One hundred and ten candidates had joined the IMS(EC)—Class 'B' when recruitment to this cadre was stopped on 21 December 1943.<sup>25</sup>

#### IMS OFFICERS FOR THE RIN

The terms and conditions of secondment of the IMS(EC) officers to the RIN were issued on 18 May 1941. These terms were the same as for the general cadre of IMS(EC) officers except that their probation was for one year and they were eligible for a charge allowance of Rs 50 when in medical charge of a ship. They were also entitled to a messing allowance at the rate of Rs 2 per day in addition to free lodging, services, fuel and light subject to a deduction of 5 per cent of the pay.

<sup>24</sup> 1/2/56 H(M)



Up to the end of January 1945, twenty-seven officers were recruited to the RIN.<sup>25</sup>

#### IMS OFFICERS FOR THE IAF

The terms of employment of emergency commissioned officers of the IMS recruited for the IAF were issued in February 1942. The terms were similar to those for the military cadre except that the probation period was one year and officers held air force ranks.

Recruitment to the IAF was very popular and the supply of applicants far exceeded the demand. Up to January 1944, twenty-four emergency commissioned officers had been accepted for service in the IAF.<sup>25</sup>

#### THE RECRUITMENT OF CIVIL MEDICAL PRACTITIONERS GRADUATES

In order to relieve the shortage of medical officers and to utilise, as far as possible, the services of candidates rejected for IMS(EC) on account of age, sanction was accorded on 5 September 1941, to the employment of 300 over-age civilian doctors for service in military hospitals. These were employed in two categories : (i) Category 'A', for local service in one military station only. (ii) Category 'B', for service within the confines of one military district only.

On 11 April 1942, in order to avoid confusion with the categories of medical fitness, categories 'A' and 'B' were changed to 'L' and 'D', local and district, respectively.

The original terms were supplemented by further provisions regarding pay, charge pay, increments, qualifications for appointment, age limit, form of agreement of service, travelling allowance and local conveyance allowance, status, accommodation and uniform and were issued on 9 December 1941.<sup>26</sup> Total number of CMPs (graduates) recruited up to July 1945, was 502.<sup>27</sup>

#### RECRUITMENT TO THE RAMC IN INDIA

Before World War II, recruitment to the RAMC was entirely controlled by the War Office and undertaken only in the United Kingdom. It was restricted to the men of pure European descent. On 26 June 1939, the War Office intimated that temporary commissions in the RAMC were being granted to medical practitioners between the ages of thirty and forty-five years for a period of service of one year in the United Kingdom or three years, with an obligation to serve abroad if required. On the outbreak of hostilities certain British medical practitioners in India had offered their services. It was, therefore, proposed on 20 September 1939, to approach the Secretary of State for India for sanction for the recruitment of these

<sup>25</sup> A/2/56/H(M).

<sup>26</sup> See Government of India, Defence Department letter No 26-3/41-R (III) (DGIMS) dated 9 December 1941 as amended from time to time [L/7/3/H(M)]

<sup>27</sup> P/1/39/H(M)

practitioners to emergency commissions in the RAMC<sup>28</sup> The War Office had, however, decided just then that they would not accept candidates from India for commissions in the British service The question was, therefore, dropped The shortage of RAMC officers in India was growing and towards the middle of 1940, officers were not available in sufficient numbers to meet the requirements adequately The War Office agreed on 18 June 1940, to the appointment of British candidates under fifty years of age holding qualifications registrable in the United Kingdom to emergency commissions in the RAMC in India, subject to their medical fitness, satisfactory interview and availability for general service Suitable terms and conditions of their recruitment were issued on 20 February 1941<sup>29</sup> The total number of officers recruited in India under these terms was eight

Similarly there were in India, either resident or practising, some British women doctors and it was desired to recruit as many of these as possible in the RAMC The War Office agreed<sup>30</sup> to their recruitment on 11 July 1940, and the final terms and conditions of service were issued on 20 February 1941 Based on the War Office rules the age limit for these medical practitioners was fixed at forty It was, however, found that there were some women doctors who, though over forty years of age, were otherwise suitable for employment In consultation with the War Office women doctors up to the age of fifty years were accepted as CMPs

Under the Women's Forces (Officers' Commissions) Order 1941 women medical officers accepted for emergency appointments with the RAMC could be granted commissions in the Women's Forces The War Office had also agreed on 27 May 1942, to accept women medical officers up to forty five years of age for the RAMC Up to that time only ten women doctors had been employed in India in the RAMC with military status Of these, nine accepted commissions in the Women's Forces for service with the RAMC while one was unwilling

The total number of women medical officers appointed to the RAMC in India was sixteen In addition, four British women medical practitioners were appointed as CMPs

#### ALLEN DOCTORS

The question of the employment of alien doctors in the military medical services originally arose in January 1941, when two Czech doctors, then resident in Teheran, offered their services In order not to lose their services, especially in view of the grave shortages of both IMS and RAMC officers, the possibility of their employment in the RAMC was considered The War Office agreed on 30 July 1941, to the recruitment of suitable alien and refugee doctors, other than those of Axis origin<sup>31</sup> In the case of Jewish refugees who were stateless their former nationality was to be the deciding factor Out of a list of sixty five alien doctors who had offered their services in

<sup>28</sup> F/Z 19171/H(M)

<sup>30</sup> F/Z 20996/H(M)

<sup>29</sup> F/Z 20772/H(M) A/2/14/H(M)

<sup>31</sup> F/Z-24090/H(M)

connection with the war, forty-six appeared to be suitable for military employment. The General Staff (GS) Branch had no objection to the employment of twenty-six of these from the security point of view. Of these twenty-six, five, being suitable for emergency commission in the RAMC, were recruited, but the remaining, being of Axis origin, could not be commissioned. It was, therefore, suggested that they be employed as CMPs on full RAMC duties. They could thus be removed from service immediately if found unsuitable. Terms and conditions of their employment as such were accordingly framed and finally issued on 22 November 1941.<sup>32</sup>

The age limit for the employment of alien medical practitioners as CMPs was fixed at fifty years which was the age limit laid down for emergency commission in the RAMC. Even then the services of some of these practitioners could not be utilised as they were over fifty years of age. It was accordingly decided to waive the age limit at the discretion of the DMS in India and the necessary orders were issued on 10 January 1942. In March 1942, it was reported that the terms of service offered to the alien CMPs were likely to cause discontent among the Indian CMPs. It was therefore decided, on 23 June 1942, that : (a) all alien CMPs below the age of fifty should be taken into the RAMC, (b) the nine over-age alien CMPs already in employment should continue in service, (c) no more aliens should be appointed as CMPs but those who fulfilled the conditions should be recruited to the RAMC.

At that time twenty-two aliens in all were employed as CMPs on full RAMC duties, of whom fourteen were considered suitable for commission in the RAMC. The other seven who were over-age could not be commissioned but were retained as civilians under their existing terms. The remaining one was found unsuitable and was discharged. To satisfy the security considerations in the case of the alien commissioned doctors, it was decided that the Medical Directorate would keep the GS Branch fully posted with the charge they held. The total number of aliens employed as CMPs or commissioned officers in the RAMC in India was forty-seven, which included six women.

#### CHINESE DOCTORS

On 14 December 1942, the Military Attaché, British Embassy, Chungking, forwarded applications from eleven Chinese doctors for commissions in the IMS. As they could not be granted commissions in the IMS on account of their nationality, it was decided to recruit them into the RAMC provided they satisfied security considerations. Six Chinese doctors were thus commissioned.

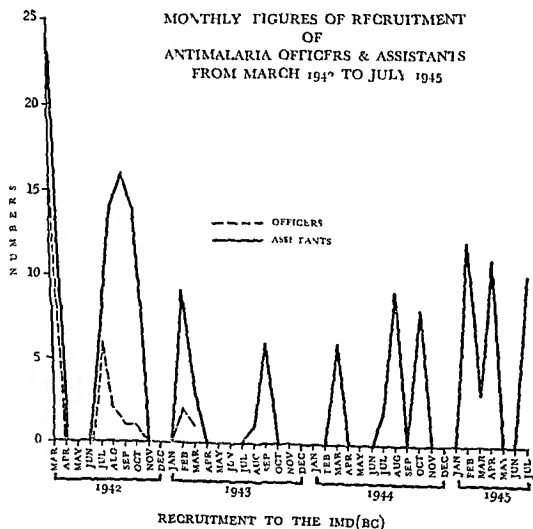
#### THE RECRUITMENT OF ANTI-MALARIA OFFICERS AND ASSISTANTS

In September 1941, it was considered necessary to intensify anti-malaria measures in military stations. This involved a reorganisation of the malaria control machinery and the consequent appointment

<sup>32</sup> AI(I)345/1941

of anti-malaria officers and assistants. The terms and conditions<sup>33</sup> of the employment of such officers and assistants were sanctioned on 7 February 1942. Candidates selected as anti-malaria officers were required to undergo a course of training at the Malaria Institute of India, Delhi, for a period of four weeks. Those who passed the examination at the end of the training were posted for duty to military cantonments and, as far as possible, were retained in the same stations. By July 1945, twenty-eight anti-malaria officers had been recruited.<sup>34</sup>

Graduates in science were recruited as anti-malaria assistants. Preference was given to graduates in zoology. Up to the end of July 1945, 152 anti-malaria assistants were appointed.<sup>35</sup> Before appointment they also had to undergo a course of training, after which they were posted to military cantonments for a period of three years in the first instance.



Recruitment to the IMD(BC) was confined to the military medical students under training at government expense. With the formation of the IAMC the training of military medical students for

<sup>33</sup> See Government of India Defence Department Letters No. 13041/19 R(II) (DGIMS) dated 7 February 1942 and No. 13041/18-R(II) (DGIMS) dated 7 February 1942 [L/6/21/H(M) L/7/4/H(M)]  
<sup>34</sup> P/1/39/H(M)  
<sup>35</sup> P/1/39/H(M)

the IMD(BC) was stopped but those already under training were allowed to continue their studies as stipendary students, and of these, twelve were appointed as WOs in the IAMC Special Medical Section (SMS) while others were granted commissions in the IMS/IAMC.

#### RECRUITMENT TO THE IMD(IC)

As in the case of the IMS, recruitment to the regular cadre of the IMD(IC) was stopped soon after the outbreak of the war. A separate cadre called the emergency branch of the IMD was started. The terms and conditions<sup>36</sup> of recruitment of private medical practitioners possessing licentiate medical qualifications to this cadre were issued on 16 November 1939, and recruitment commenced in April 1940. DGIMS was authorised to recruit 100 candidates every month, mainly from among the registered medical practitioners of the licentiate class, to be supplemented by calling up civil sub-assistant surgeons. Under these terms licentiates were appointed initially in the rank of WO class II and, if qualified, were recommended to the rank of jemadar after five years service in the warrant grade. The initial pay of a WO was Rs. 70 per month. At a conference held in the office of the AG in India on 25 June 1940, it was observed that these terms had failed to attract recruits. It was, therefore, decided to offer the following revised terms —

- (i) All appointments to be made in the rank of jemadar with an additional grant of civil allowance of Rs. 50 per month.
- (ii) Candidates possessing higher licentiate qualifications to be appointed in the rank of subedar and to draw the pay prescribed for that rank plus civil allowance of Rs. 50 per month
- (iii) Free conveyance in connection with interviews.
- (iv) Similar concessions to be granted to the serving sub-assistant surgeons of the provincial medical departments on their joining for Army service.

The revised terms of service were issued on 17 July 1940. By May 1941, most of the civil sub-assistant surgeons had been called up. Considering the number of licentiates in India, which was estimated at 27,000 the response from the licentiate medical practitioners had also been far from satisfactory; up to July 1941, only 351 had volunteered from that category. A conference of the representatives of licentiates and provincial AMOs, held on 23 September 1941, under the chairmanship of DGIMS, to consider ways and means for bringing up the recruitment to a satisfactory level, made the following recommendations :—

- (1) Licentiates who volunteered for temporary service in the Army should be compensated for the lack of permanency and the absence of pensions, such compensation to take the form of an addition to the regular pay.

<sup>36</sup> See Government of India, Defence Department letter No Z-19551/1(DMS1) dated 16 November 1939 as amended from time to time [L/6/7/H(M)]

- (ii) Grant of antedate equal to half the number of years of private practice subject to a maximum antedate of five years
- (iii) Grant of a large number of honorary commissions to senior members

All these recommendations were accepted by the Government of India and orders implementing them were issued. Further concessions were also allowed in order to make the service attractive. These were —

- (i) The designation of sub assistant surgeon was changed to assistant surgeon IMD(IC) on 22 May 1941
- (ii) The civil allowance of Rs 50 per month was increased to an emergency allowance of Rs 125 per month whereby the total initial emoluments of IMD(IC) were raised from Rs 125 to Rs 200
- (iii) Antedate up to twelve months for higher licentiate qualifications, namely MCP and S, MMF, MSMF, DMS, and six months in respect of DTM or equivalent diploma, in addition to antedate for professional experience, was sanctioned, on 16 December 1941. Antedate for professional experience was calculated on the basis of the period from the date of qualification to the date of appointment and was admissible only to those with over three years professional standing subject to a maximum of five years, and was not reckoned in periods of less than six months
- (iv) *Period of probation* The period of probation of IMD(IC) was raised from three to six months on 5 May 1942. This change was made to bring the terms into conformity with those for the IMS (EC)
- (v) *Age limit* The age limit of a candidate for appointment to the emergency branch of the IMD(IC) was also raised from thirty-five to forty years on 3 September 1942
- (vi) *Uniform allowance* On 20 October 1942, the free issue of personal equipment was replaced by a uniform allowance at Rs 150 for the first year and Rs 75 for the subsequent years of Army service

Up to 3 April 1943, 1,375 licentiates were appointed to the emergency cadre of the IMD(IC). This number included 727 private practitioners and 648 provincial civil sub assistant surgeons.<sup>37</sup>

In addition to these general improvements in the terms and conditions of service the following additional schemes were also implemented to supplement the IMD cadre: (i) Recruitment of CMPs (licentiates) (ii) Recruitment of IMD(IC) from the railways (iii) Recruitment of IMD(IC) for service within Indian limits (iv) Recruitment of technicians

<sup>37</sup> A/2/5f/H(M) P/1/39/H(M)

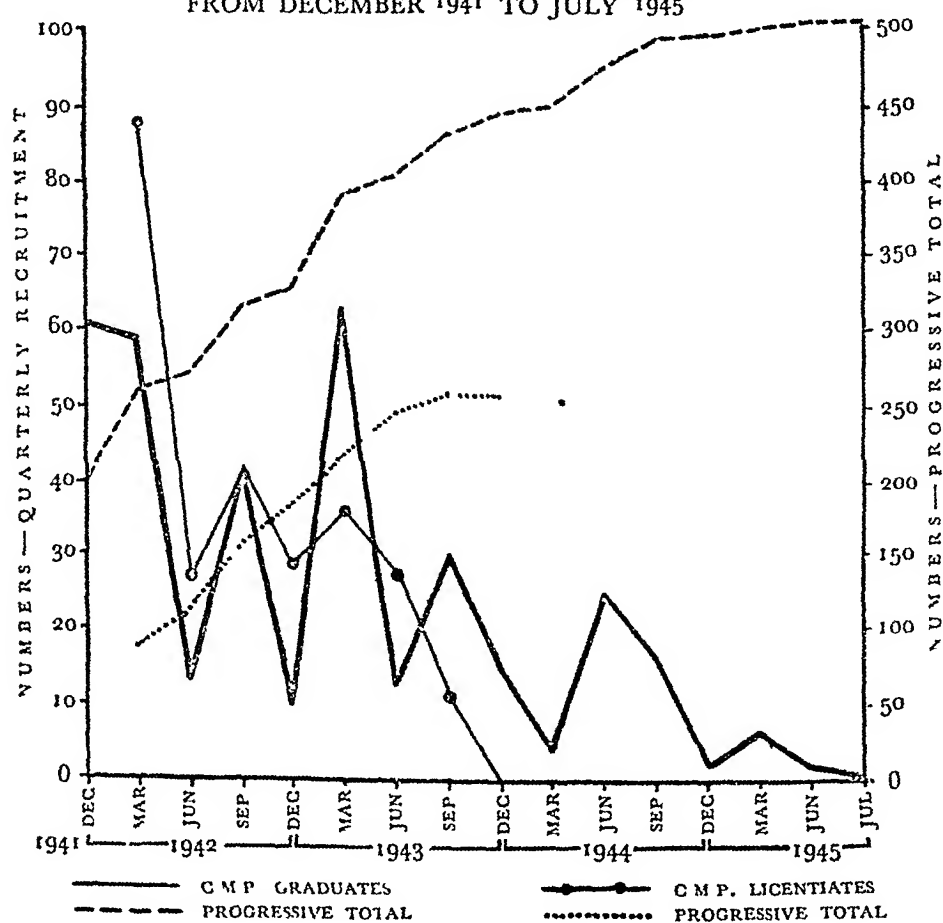
## THE RECRUITMENT OF CMPS (LICENTIATES)

To meet the shortage of assistant surgeons IMD(IC) who were urgently required for the raising of medical units, it was proposed to employ 300 civilian licentiate medical practitioners in the hospitals in India, thus releasing the same number of assistant surgeons IMD(IC). The terms and conditions of their employment were issued on 19 November 1941. They were also employed in two categories 'A' and 'B', as in the case of CMPs (graduates), these categories being subsequently changed to 'L' and 'D' on 6 May 1942.

The terms and conditions of service were revised from time to time, provision being made regarding increases in pay, travelling and other allowances and disability and family pensions.<sup>38</sup>

Up to the end of August 1943, 257 licentiates were recruited against the target of 300. It was then decided to discontinue further recruitment of this class.<sup>39</sup>

QUARTERLY RECRUITMENT  
OF  
CMP GRADUATES & C.M.P. LICENTIATES  
FROM DECEMBER 1941 TO JULY 1945



<sup>38</sup> See Government of India, Defence Department, letter No. 23-40/41-R dated 19 November 1941 as amended from time to time, L/6/19/H(M) <sup>39</sup> A/2/56/H(M).

## THE RECRUITMENT TO THE IMD(IC) FROM THE RAILWAYS

Special terms for the recruitment of sub-assistant surgeons employed in state and company managed railways to the emergency branch of the IMD(IC) were issued on 29 November 1941. These terms were the same as for the provincial civil sub assistant surgeons employed on military duty, except for certain modifications which covered the concessions to which these railway employees were entitled by virtue of their employment on the railways. Yet out of the nearly 570 medical licentiates on the railways only two joined the IMD(IC) up to March 1943.

## IMD(IC) FOR SERVICE WITHIN INDIAN LIMITS

The terms and conditions of recruitment to the emergency branch of the IMD(IC) for service within Indian limits only were issued on 20 July 1942. These terms were the same as for private medical practitioners recruited to the general branch of the IMD(IC) except in respect of the emergency allowance, which was fixed at Rs 75 instead of Rs 125 per month. Up to March 1943, thirty-five assistant surgeons IMD(IC) were recruited for service within Indian limits only.

## THE SITUATION AFTER THE FORMATION OF THE IAMC

It was hoped that the formation of the IAMC in April 1943, would to some considerable extent solve the problem of providing medical officers for the Army. The creation of the new corps had the effect of eliminating the distinction between graduates and licentiates so far as the Army was concerned. It enhanced the status of a licentiate from that of a VCO to an Indian commissioned officer in His Majesty's Indian Land Forces. The new terms and conditions also made considerable difference in the pay, allowances *etc.* of the licentiates. Hence, on the formation of the IAMC there was an immediate and sustained improvement in recruitment though not to the extent anticipated. This improvement was well maintained up to the early months of 1944 after which it showed a definite downward trend.<sup>40</sup>

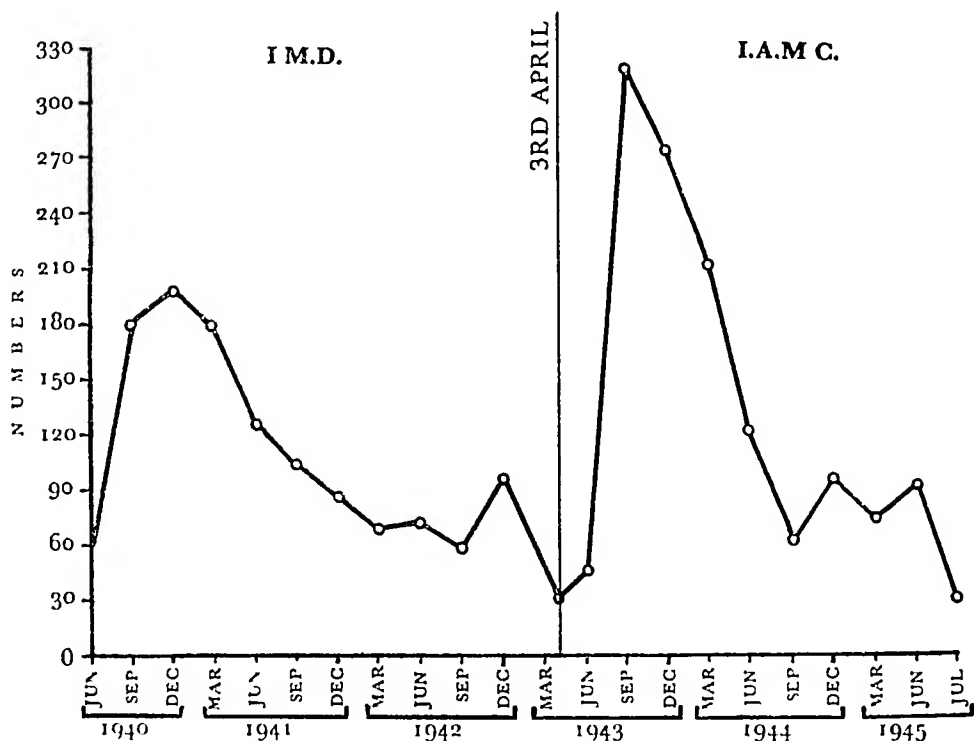
Up to July 1945, 1,284 licentiates were commissioned in the IAMC. The number of IAMC (SMS) officers commissioned up to January 1945 was 1,420.<sup>41</sup>

<sup>40</sup> A/6/39/H(M)

<sup>41</sup> A/2/56/H(M) P/1/39/H(M)



QUARTERLY RECRUITMENT TO THE EMERGENCY BRANCH  
OF THE I M D AND EMERGENCY COMMISSION IN THE  
I A M C



THE RECRUITMENT OF TECHNICIANS AS WOS CLASS II

In order to economise in the use of qualified doctors, it was decided to recruit technicians for employment on routine medical duties in military hospitals. These were employed as compounders, radiographers and laboratory assistants and were enrolled as WOs Class II in the IMD. It was the intention that they should relieve a large number of doctors who could then be utilised in other spheres requiring expert knowledge. The terms and conditions for their recruitment were issued on 20 November 1941. The first batch of technicians was appointed in January 1942.

In June 1942, it was realised that the laboratory assistants recruited up to that time were not of a type suitable to fill responsible positions and would never be fit to replace assistant surgeons IMD(IC) in independent charge of a laboratory. Consequently recruitment to this cadre was stopped. With regard to those already in service enquiry was made as to whether they would be prepared to serve as compounders in the same rank, in the event of their being considered suitable for such employment. Those who were not so willing to serve were to be discharged from the service.

It was also considered that if the radiographers then recruited were of the same type as the laboratory assistants it was very probable that they too would not be capable of holding responsible posts in

sub charge of X-ray plants. Therefore, these were brought before a selection board, consisting of a specialist in radiology and one other IMS officer, after their preliminary training, to determine their suitability or otherwise for the post of radiographer. Those selected were given a further training of two months.

As regards compounders, although some of these men had played an important part in the establishments of the civil hospitals, in running dispensaries, assisting in operating rooms and in operational dressing *etc*, yet they could not adapt themselves to the military machine without preliminary training and instruction.

The question of recruitment of a better type of candidate on improved terms for appointment as laboratory assistants and radiographers was taken up again and the revised terms for their recruitment were issued on 1 January 1943.<sup>42</sup> Under these terms only science graduates of recognised universities in India and holders of the senior diploma of the Mayo College Ajmer were eligible for appointment. They were appointed as WOs class I on a pay of Rs 100-10-130 per month plus other allowances. In other respects the terms of service remained the same.

With the formation of the IAMC these personnel were transferred *en bloc* to the new corps. Up to that time 312 compounders, forty-two laboratory assistants and ten radiographers had been recruited.

#### CONCESSIONS GRANTED BY THE PROVINCIAL GOVERNMENTS

The provincial governments granted certain concessions to medical men employed under them who volunteered for service in the Army with a view to giving impetus to recruitment. Some of the more important concessions were —

- (i) Grant of lien on the civil appointments in the case of permanent government servants
- (ii) Confirmation of probationers either on completion of period of probation or on the occurrence of substantive vacancy
- (iii) Military service to count for pay, promotion, and pension in the civil departments
- (iv) Permanent recruitment to the provincial cadre to be suspended during the war
- (v) Preference for permanent appointments in the provincial cadre to be given to those with approved military service

#### PUBLICITY AND PROPAGANDA

The success of the measures to promote recruitment to the military medical services depended largely on the schemes of publicity

<sup>42</sup> See Government of India War Department letter No 15 2/42/R (II) (DGIMs) dated 1 January 1943 [L/G/20/H(M)]

and propaganda which were then instituted. Advertisements were inserted in the professional and lay press, information pamphlets were widely distributed and press notes were issued from time to time. Broadcasts through the All India Radio were given and films showing the working of the medical services in the Army were exhibited. Personal letters from the DGIMS were sent to all the licentiates and to the newly qualified graduates.<sup>43</sup>

#### VISITS TO SCHOOLS AND COLLEGES BY MEDICAL OFFICERS

In 1942 it was estimated that there would emerge some 600 new graduates and 900 licentiates from the colleges<sup>44</sup> and schools. In order fully to exploit this source it was proposed to send to each medical college or school specially selected officers who had graduated from the institutions concerned and who held regular or emergency commissions in the respective services. These officers were expected to contact, as unofficially as possible, students who were undergoing their final examinations and to persuade them to join the Army. For this purpose the necessary Government orders were issued in October 1942.

#### GRANT OF STIPENDS TO FINAL YEAR MEDICAL STUDENTS

At the same time another scheme, under which military cadre were formed in colleges and schools for such students as agreed, at the commencement of their last year of study, to join the Army on obtaining their degree, was taken in hand. A monthly stipend of Rs. 100 was awarded to those studying in colleges and Rs. 50 to those studying in schools, provided they agreed to join the Army after obtaining their degree or diploma.

#### PROPAGANDA TOURS

With the formation of the IAMC a fresh publicity campaign was started. Selected licentiates of standing and influence were appointed for propaganda work in the provinces of Madras, Bombay, Bengal, United Provinces, Punjab, Bihar and Assam on a remuneration of Rs. 800 per month with first class travelling and daily allowances. Suitable prominent licentiates were also engaged in all provinces for short recruitment tours, limited to one or two weeks, in the areas in which they had influence. They were paid Rs. 15 a day and first class travelling allowance.

#### ATTACHMENT OF IAMC OFFICERS WITH PROVINCIAL AMOS

Serving licentiate officers of the IAMC were attached to the offices of the provincial AMOs for supplementing the work done by non-official recruiting officers. Two such officers were assigned for

<sup>43</sup> A/6/39/H(M)

<sup>44</sup> A/6/18/H(M)

duty in Bengal and Bombay each, and one in each of the remaining provinces except Assam. These officers were attached for a period of three months in the first instance and their appointment extended to six months if necessary. About forty such officers were thus employed.

#### VISITS TO THE ARMY MEDICAL TRAINING CENTRE

When the first flush of enthusiasm for the new corps began to wane other methods of stimulating recruitment were adopted. After March 1945, newly qualified doctors and final year students of the medical colleges and schools, in batches of not more than sixty, were invited by the DMS each month to visit the Army Medical Training Centre (AMTC). The visits were for four days, extendable up to six days. The visitors were given three second class fares each for the journey, free transport while at the AMTC, and free accommodation and messing. The object of these visits was to enable the students to have actual experience of the advantages they were likely to gain by a period spent in military service.<sup>45</sup>

In January 1945, a special issue of the *Indian Medical Journal*, the Journal of the All India Medical Licentiates Association, was published which contained full information concerning the terms and conditions of service in the IAMC and also special messages from high officials and leaders of the medical profession.<sup>46</sup>

<sup>45</sup> A/6/39/H(M), F/8001/307/H(M)

<sup>46</sup> A/6/39/H(M)

## CHAPTER IX

# Medical Aspects of Recruitment

### RECRUITING MEDICAL OFFICERS

Before September 1939, the medical examination of recruits was carried out by eight RMOs located at Rawalpindi, Lahore, Jullundur, Delhi, Poona, Kohat, Lucknow and Ajmer. The appointment of officers of the medical services specially trained in the examination of recruits had been originally introduced, as an experimental measure, in 1927<sup>1</sup> and was sanctioned as a permanent measure in 1930.<sup>2</sup> These RMOs toured their respective areas with the assistant recruiting officers (AROs) but in certain stations where special RMOs were not available, recruits were examined by officers of the IMS and the RAMC or by the civil surgeon or the civil assistant surgeon appointed to act as civil surgeon.<sup>3</sup> Recruits from the Indian States were examined by RMOs or by IMS and RAMC officers who were paid a fixed fee of Rs. 5 by the state concerned for each examination, subject to a maximum of Rs. 20 per day.<sup>4</sup> To meet mobilisation requirements it was decided in January 1938, that forty officers of the AIRO(M) should be trained in the duties of a RMO. Headquarters Districts and Independent Brigade Areas were asked on 13 January 1938, to select suitable officers and to begin their training as early as possible. This training was carried on throughout 1938. On 21 November 1938, the total number of RMOs required was fixed at forty-eight full-time and thirteen part-time.<sup>5</sup> Recruits passed fit by any of these recognised medical officers, if otherwise approved, were enrolled or engaged without further examination.

Immediately on the outbreak of war AIRO<sup>6</sup>(M) as they became available, were posted to the fast expanding recruiting organisation. By the end of September 1939, these officers had reported for duty and the number of RMOs had increased from eight (peace-time strength) to forty-eight in the course of a month. Additional medical officers from this source were also posted to the technical recruiting branch of the recruiting organisation.<sup>7</sup>

The need for additional RMOs had, however, to be balanced against the need for medical officers for India's rapidly expanding

<sup>1</sup> AI(I) B-80/1927 as amended by corrigendum No 4, dated 22 November 1927 and No 7 dated 4 September 1928 and Appendix I, item 14 of RMS (I), Rectg Regs Part I (Peace) Appendix II

<sup>2</sup> AI(I) 62/1930

<sup>3</sup> Rectg Regs Part I (Peace) Para II

<sup>4</sup> RMS(I) Para 270 (iii)

<sup>5</sup> F/Z-17425/H(M)

<sup>6</sup> Rectg Regs (War) para 6

<sup>7</sup> Rectg Regs Part II (War) para 15 (N)

field formations and it was difficult to spare any more medical officers. Special measures were, therefore, introduced to provide medical officers for the recruiting organisation. The technical recruiting officer (TRO) and assistant technical recruiting officers (ATROs) made considerable use of their authority to employ private medical practitioners,<sup>8</sup> who were paid a fee of Rs 5 for each examination, subject to a maximum of Rs 20 per day, for all the services rendered to the military authorities.

The Director of Recruiting (D of R), fully appreciating the manpower difficulties of the DMS, tried to put his demands for military RMOs at the lowest level. Nevertheless, the expansion of the Indian Army involved a large recruiting programme with a considerable expansion of recruiting areas, so that many more RMOs were required. By September 1940, their total number had risen to nearly eight times that of the peace-time figure. This was, however, only the beginning and from time to time further demands for RMOs were made which were met by the medical authorities on demand, but with increasing difficulty.

In April 1941, the C-in C decided that the area of recruitment should be greatly enlarged. Consequently, the recruiting organisation was overhauled to enable the recruiting staff to carry out more intensive and prolonged touring and to maintain much closer liaison with the civil authorities and military formations than had hitherto been possible. This re-organisation involved an increase in the recruiting organisation of thirty-two recruiting officers (ROs) and AROs and fourteen RMOs, which, with other demands that had been met periodically since September 1940, raised the total number of military RMOs to ninety-five at the beginning of May 1941.<sup>9</sup>

The DMS represented to the AG that the loss of ninety-five alert and physically fit officers was a serious one and suggested that a committee be formed to review all means of restoring the military RMOs to the medical services. This committee could at the same time examine all future demands for RMOs, which had till then been met by the DMS. He also suggested that administrative medical officers of commands and districts should be given specific authority to inspect the work of RMOs and to report whether they considered the number in any recruiting centre to be excessive or inadequate. Although the AG did not agree to set up the proposed committee he consented to the issue of orders covering all the other points raised by the DMS. Consequently instructions were issued to all commands and to Western Independent District on 6 June 1941, to the effect that the ADsMS of districts should in future keep in closer touch with the medical aspects of recruiting than had been the practice in the past and should be responsible for —

- (1) investigating all medical matters relating to recruiting,

<sup>8</sup> Rectg Regs Part II (War) para 24 as amended by Corrigendum No 19 of October 1939

<sup>9</sup> F/Z 1742J/H(M)

- (ii) advising on all medical technical points, and
- (iii) reporting departmentally to higher authority when they thought that improvement could be introduced in such matters.

They were to assure themselves that RMOs performed their work efficiently, and that recruiting districts were neither over nor understaffed by medical officers. The ADsMS were also required to recommend how far the civil medical organisation could, if so directed, relieve the Army of recruiting medical duties. Thereafter all applications for the appointment of RMOs were to be made by ROs to the GOC of the appropriate district, who was to satisfy himself that the posting was necessary.<sup>10</sup>

Similar instructions were issued at the same time from the Medical Directorate on 7 June 1941, to DDsMS Commands and ADMS, Western (Independent) District. All ADsMS were asked to report through normal channels what savings they considered possible in the establishment of RMOs in their districts. ADsMS were also required to report how far the existing staff of RMOs could be replaced by medical officers of a lower medical category, and to what extent, in their opinion, the civil medical organisation in their districts could relieve the Army of recruiting medical duties. In the course of this investigation DDMS, Southern Command suggested the discontinuance of the practice of medical officers accompanying AROs on their tours and the introduction of centralised medical examination of recruits at the recruiting centres, military hospitals or training depots. Such a system, he said, would reduce the number of medical officers employed on recruiting duties by two-thirds. The recruiting authorities in the Southern Command were, however, opposed to these changes. They argued that under the proposed system recruits would have to travel long distances; men enrolled by recruiting officers and subsequently rejected on medical examination on returning home would not admit that they had been rejected on medical grounds, but would say that having tried the Army they found it uncongenial, and would thereby harm recruitment. They further contended that the scheme would reduce recruiting by 30 per cent.<sup>11</sup> The recruiting authorities at GHQ held that such schemes were impracticable in war time as they involved back-railing, time lag and incomplete fulfilment of demands due to the medical rejections which could not be foreseen. Recruitment had to proceed on a broad front to procure the necessary number of recruits in the time required. This entailed all the AROs working simultaneously and AROs could not recruit satisfactorily unless a medical officer was always available.<sup>12</sup> Headquarters, Northern Command suggested that a readjustment of the duties of RMOs in certain recruiting areas could save a number of medical officers. Quoting the example of Lahore and Jullundur, they pointed out that the number of recruits actually examined by each RMO daily during the previous six months was 16 and 14 respectively.

<sup>10</sup> F/Z-17425/H(M)<sup>11</sup> F/Z-18721/H(M)<sup>12</sup> F/Z-26107/H(M)

These figures corresponded to the average maintained throughout India at that time, but this average was falling markedly as the number of inexperienced RMOs increased. The daily average was far too low. The medical authorities at GHQ pointed out that with individual examination a normal limit of forty recruits per day per medical officer for a six hour day was set in 1916. A maximum of eighty per day in an eight hour day was as much as an average RMO could do with any accuracy in a full examination. A skilled RMO might do 100 per day with full clerical assistance in the taking of measurements, weights etc.<sup>13</sup> Moreover Headquarters Northern Command, suggested the appointment of one senior recruiting medical officer (SRMO) at Lahore and one at Jullundur, and the withdrawal of all other military RMOs to the command. The two SRMOs were to function in a controlling role, to take orders from the ADMS on the policy to be followed, and to be responsible for the uniformity of standards of examination and occasionally visiting outstation centres. They were also required to examine all recruits at the station headquarters. On the withdrawal of the military RMOs the civil authorities were to be asked to order assistant surgeons in charge of civil hospitals and sub assistant surgeons in charge of rural dispensaries to carry out the examination of recruits for the Army. This scheme, however, was not developed at that time.

The investigation further revealed that under the existing system, since a medical officer was required to accompany the RO, TRO, or ARO, the scope for any reduction in the number of RMOs was limited. Medical category 'A' RMOs could be replaced by lower category medical officers but opinion on the subject of employment of civilian doctors as RMOs was divided. In view of the progressive shortage of medical officers, it was, however, decided that military RMOs would be partially replaced by civil sub assistant surgeons with a consolidated allowance of Rs 75 in addition to their civil pay.

This step was not sufficient to meet the demand for RMOs and in June 1942, it was decided that the services of assistant surgeons, sub assistant surgeons of the provincial medical departments and private medical practitioners holding the minimum qualifications for a sub-assistant surgeon might also be utilised, when necessary, for the medical examination of recruits. Private medical practitioners holding the minimum qualifications of sub assistant surgeons were to be paid a fee of Rs 2 per recruit subject to a maximum of Rs 10 per day.

Later, sanction was obtained for the employment of 'rural' medical officers with licentiate qualifications, on the basic pay admissible in the district board or local body concerned with a consolidated allowance of Rs 75 per month, plus rent free quarters or suitable house rent in lieu.<sup>14</sup>

In 1944, steps were also taken to utilise the services of sub-assistant surgeons of the Burma Subordinate Medical Department

<sup>13</sup> F/Z 17425/H(M)

<sup>14</sup> F/17763/H(M)



who had been evacuated from Burma in 1942. They were employed on the same terms<sup>15</sup> as for the provincial sub-assistant surgeons mentioned earlier.<sup>16</sup>

Later on it became obvious that further measures were necessary to increase the number of RMOs and in November 1944, CMPs graduates and licentiates were also employed by the recruiting organisation.<sup>17</sup>

*Average number of RMOs employed during 1940-45*<sup>18</sup>

Date	Number of RMOs		
	Military	Civilian	Total
September 1940	61		61
May 1941	95		95
November 1942	77	122	199
September 1943	88	139	227
„ 1944	109	184	293
„ 1945	139	164	303

### SRMOs

The standard of medical examination in the beginning was not uniform. One experienced medical officer in each area was, therefore, appointed as SRMO to provide experienced supervision of the work of all RMOs. The SRMO was responsible for co-ordinating medical policy, training medical recruiting staff and advising RMOs on the medical examination of recruits for the various categories of the Indian Army. He also acted as medical adviser to the AROs, and made the final decisions on all questions of medical fitness. He was also required to submit monthly returns covering all recruiting examinations in his area and to scrutinise all cases rejected on medical grounds. It was suggested that the SRMOs should be granted the acting rank of major, but as the proposal was based on status and not on the responsibilities involved, it could not be accepted, and a compromise was reached by granting them the local rank of major. However, with the large expansion of the recruiting medical organisation and consequent increase in the responsibilities of the SRMOs, the proposal to grant them acting rank of major was revived, and in July 1944, all SRMOs with twelve or more RMOs working under them were promoted to this rank.<sup>19</sup>

### FILTER MEDICAL OFFICERS

It had been hoped that the appointment and promotion of the SRMOs would improve the standard of medical examination, but

<sup>15</sup> See page 116

<sup>16</sup> A/6/42/H(M)

<sup>17</sup> F/17763/H(M)

<sup>18</sup> See also Appendix XVI

<sup>19</sup> F/Z-17425/H(M)

such hopes were not fully realised and, in September 1943, the necessity for an additional check on the physical fitness of recruits during preliminary training led to the introduction of the 'Second Filter' and the appointment of 'Filter Medical Officers'.<sup>20</sup> Under the existing regulations, regimental medical officers at the depots or units were forbidden to re-examine recruits or question the findings of the recruiting medical staff.<sup>21</sup> But the progressively deteriorating standard of recruits, and the increase in the number of inexperienced medical officers employed on recruiting duties, demanded immediate revision of the recruiting policy. It was obviously undesirable that an unfit recruit, possibly even deformed or paralysed beyond all hope of making a useful soldier, could not be re-examined on arrival at his depot by a medical officer except at the request of the depot commander. The procedure of medical board in such cases was tardy. Hence the system of the 'Second Filter' was instituted which involved the employment of fifteen whole-time and two part-time IACG officers at the recruit reception camps (RRCs).<sup>22</sup> The 'Filter Medical Officers' worked under the direction of the SRMO of the area, who, from information provided by them, was able to keep a careful check on the standard of medical examination carried out by the RMOs.

#### ADMINISTRATION OF RMOs

Originally the RMOs were appointed by the DDMS of the command concerned and were borne on the strength of the local IMH. They were administered by the officers commanding the hospitals through their respective SRMOs.<sup>23</sup> This arrangement was not satisfactory as, for example, a RMO working in Campbellpore came under the administrative control of the officer commanding CMH Campbellpore through the SRMO who was in Rawalpindi. Another defect was that the ruling was not comprehensive enough to include the civilian doctors employed in recruiting work, as these orders related only to such staff as was borne on the strength of the IMH. It was also felt that while the DMS was ultimately responsible for the work of all the medical officers employed, yet logically, the recruiting organisation was immediately responsible. Hence it was considered desirable that RMOs should be placed under the immediate administrative control of the SRMOs who would be on the staff of the recruiting organisation and would approach the DMS through the RO of the area and the D of R, GHQ. On questions of medical administration SRMOs could have access to the local ADMS through the ROs. The above suggestions were accepted by all concerned and the immediate administration of RMOs thus passed into the hands of the recruiting organisation. The instructions incorporating the above suggestions, which were finally issued on 26 February 1944, also specified that all military and civil RMOs would henceforth be

<sup>20</sup> The distribution of Filter Medical Officers is given in Appendix XXII.

<sup>21</sup> RM Instructions 13.

<sup>22</sup> F/7 18721/H(M).

<sup>23</sup> F/7-17423/H(M).

borne on the strength of the appropriate recruiting office and that the SRMO would submit all strength returns and reports etc., to the AG's Branch, Medical Directorate, through the RO and the D of R with a copy to the ADMS concerned. In the case of civil sub-assistant surgeons and private medical practitioners, the SRMO could approach the civil authorities concerned through the RO. Once a medical officer had been posted to the recruiting organisation he was on no account to be removed without prior reference to GHQ. The ROs, however, could transfer RMOs within their recruiting area without reference to any higher authority.<sup>24</sup>

#### PHYSICAL STANDARDS OF RECRUITS IN INDIAN ARMY

During peace physical standards and age limits for recruits to the Indian Army were laid down in Rectg. Regs India (Peace) Part I, 1939, Section V, paras 35 to 39 and Appendix IV, and are reproduced in the Table opposite.

The ROs were responsible for checking the measurements and assessing the apparent age, intelligence and mental suitability of recruits, while RMOs were responsible to the RO for judging the physical fitness, development and identification marks of the recruits. The ROs could enrol recruits between the ages of sixteen and eighteen (except MT drivers) provided they were satisfied that such recruits would attain the prescribed physical standards by the time they reached the age of eighteen years.<sup>26</sup> Subsequently, physical standards<sup>27</sup> had to be lowered to maintain the flow of recruitment. This relaxation was most marked during the peak period of expansion (1941-42), and in fact, followers were accepted regardless of their physical standards provided they were considered physically fit for the work for which they were required. Apart from lowering the prescribed standards some other relaxations were also permitted :—

(1) *Underweight* : In August 1943, ROs, TROs and officers commanding units, who had enrolling powers, were authorised to accept recruits whose weights were not more than five pounds below the minimum weight laid down for their particular category. This was allowed only in cases where, in the opinion of the enrolling officer, the recruits were likely to attain the minimum weight standard in three months from the date of enrolment. At the end of this period an extension of one month could be allowed on the personal recommendation of the officer commanding the local IMH.<sup>28</sup> Recruits were accepted under the Labour Department Technical Training Scheme if the enrolling officer considered that they would attain the

<sup>24</sup> F/Z-17425/H(M)

<sup>26</sup> Rectg Regs India, Part I (Peace) Appendix III

<sup>27</sup> The confusing mass of directives and orders concerning the medical examination of recruits was finally consolidated for easy reference in AI(I) 856/1945 which replaced all previous IAOs and AIs(I) on the subject

<sup>28</sup> IAO 1666/1943

# Table showing the Indian Army <sup>25</sup>

Note: The O is satisfied that they will

	Army y Corps (C)		Indian Army Ordnance Corps (IAOC)			
	measurement	Weight	Minimum height	Expanded chest measurement	Weight	
	Inch	Lbs	Ft In	Inch	Lbs	
Punjabi Musal	33½	115	5 5	33½	115	
Hindustani Mus	33	112	5 5	33	112	
Pathans						
Hazarawals						
Brahamans	33½	115				
Sikhs	33½	115				
Sikhs (Mazbh)						
Rajputs	33	112	5 5	33	112	
Musalman Raj						
Rajput Musal	33	112				
Jats	33	112				
Garhwalis	33	110	5 0	33	110	
Kumaonis						
Meos						
Ahirs	33½	115				
Gujars	33½	115				
Dogras						
Madras Class						
Mahrattas			5 4	33	115	
Gurkhas						

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minimum regulation weight within four months of the date of enrolment or the commencement of training whichever was earlier. This period could be extended to six months on the recommendation of the medical officer in charge of the enrolled trainees. Recruits who failed to reach the prescribed standard within the period laid down were either transferred to some other corps, for which they had attained the required physical standard, or were discharged.<sup>29</sup>

(ii) *Age* The minimum and maximum age limits for combatant recruits were altered from sixteen and twenty-five years to seventeen and a half and twenty-eight years respectively in July 1941. In June 1942, the maximum age was raised to thirty, but in 1945 the age limit of twenty-five years was reimposed. Relaxations were, however, permitted to allow the recruitment of older men for various technical, clerical, sedentary and non combatant duties. Minimum age limits were also relaxed for such trainees as were likely to attain the prescribed age before completing their training.<sup>30</sup> The minimum age for boys was fixed at sixteen years. The upper age limit in the Auxiliary Pioneer Units was raised to thirty-five years at the discretion of the recruiting officer if the recruit was otherwise suitable in all respects.

(iii) *Visual standards* Vision testing for recruits to the Indian Army was carried out by means of the Test Dot Card (IAFM-1219) up till March 1945, when the use of the 'Test Type', Distant Vision, Army Pattern, and 'E Chart for illiterates' were introduced.<sup>31</sup> Detailed visual standards for all categories and trades were also introduced for the first time. The use of spectacles by technical personnel recruited for employment in workshops was permissible<sup>32</sup> provided that vision when so corrected was adequate for the duties involved. This ruling was later extended to clerks also.

(iv) *Physical defects* As early as 1941 enrolling officers were authorised to pass certain minor defects, after consulting the medical staff, where it appeared that the recruit was well proportioned, of sound physique and capable of carrying out the duties required of him. Condonation of minor degrees of the following defects or diseases was also authorised<sup>33</sup> otitis media and other ear diseases, knock knee, curvature of spine, small hydroceles, varicoceles and bubonocoeles, varicose veins, enlarged spleen, mild degree of varix, hammer toe, stammering, squint, and defective vision.

(v) *Venereal diseases* The Deputy D of R Poona, suggested in October 1942, that if recruits suffering from fresh attacks of gonorrhoea could be accepted and treated before starting their training it would involve a great saving of manpower. This suggestion was given a trial for four months. It was, however, found that the conservation of manpower by the suggested scheme was negligible. The sanction of beds for recruits suffering from attacks of gonorrhoea was, therefore, withdrawn.<sup>34</sup>

<sup>29</sup> IAO 588/1945<sup>30</sup> Rectg Rgs Part I (Peace)<sup>31</sup> IAO 588/1945<sup>32</sup> IAO 555/1942<sup>33</sup> IAOs 851/1941 1441/1942 6/5/1944 588/1945 AI(I) 856/1945<sup>34</sup> F/6536/H(M)

(vi) *Deworming of recruits* . It had long been known that hook-worm infection was one of the principal factors causing poor physique, anaemia etc., and that it retarded the development of recruits during their training despite improved diet. Detailed instructions for the deworming of recruits were, therefore, issued. As this infection was particularly severe among the Gurkhas and the South Indian recruits, orders were issued that all recruits in the Gurkha training battalions and No. 3 (Madrassi) AATC Battalion would be dewormed. Such recruits at other training centres and battalions as showed symptoms of anaemia, disorderly action of the heart, mental slowness and failure to improve and put on weight on extra rations and shark liver oil would also be dewormed. The investigation conducted at IMHs Abbottabad, Rawalpindi, Shillong and Jubbulpore showed great improvement in the condition of recruits thus treated.<sup>35</sup>

(vii) *Skin diseases* : It was suggested by ROs that certain recruits suffering from minor skin ailments (*e g.*, ringworm and other skin diseases) might be enlisted and undergo treatment in RRCs. The medical authorities agreed to accept recruits suffering from minor skin diseases likely to recover quickly under treatment. Similarly, recruits suffering from minor septic conditions and wounds which were not widespread or which did not constitute massive contagious skin diseases could be enrolled. It was, however, insisted upon that intractable skin diseases, including ringworm, should be a definite bar to enrolment.<sup>36</sup> Potential recruits suffering from scabies were also enrolled and sent for treatment, but this concession applied only in cases where the recruit was well above the minimum physical standard, and the border-line cases were rejected.

(viii) *Dental conditions* : Each sound incisor, canine, premolar and under-developed third molar was counted as one 'point' and each first molar, second molar and well developed third molar as two 'points'. The minimum number of dental 'points' required was eleven. The relative position of sound teeth to ensure efficient mastication was an important consideration.

(ix) *Vaccination and protective inoculations* Existing regulations<sup>37</sup> laid stress on vaccination and inoculation of recruits immediately on enrolment. It was felt, however, that this protective treatment frightened away many potential recruits. Instructions were, therefore, issued that recruits need not be inoculated until they had finished one month's training.<sup>38</sup> In 1944, this relaxation was cancelled because several serious outbreaks of small-pox and enteric fever had occurred among recruits who were unprotected or inadequately protected.<sup>39</sup>

#### MASS MINIATURE RADIOGRAPHY

In August 1941, the suggestion was made to institute mass miniature radiography for recruits. Although X-ray examination of

<sup>35</sup> F/Z-23257/H(M), IAOs 580/1941 1839/1944

<sup>37</sup> RMS(I) Paras 471, 483

<sup>38</sup> F/24010/H(M)

<sup>36</sup> A/6/42/H(M)

<sup>39</sup> A/6/42/H(M)

the chest of all recruits would have been ideal yet it had not been possible to make the necessary arrangements for the examination of approximately 45,000 recruits per month. In the beginning of 1944, it was decided to start a mass radiography centre at Kunraghat for Gurkha recruits. The centre started working on December 1944, and by 1 March 1945, 3,097 Gurkha recruits had been examined, of whom 0.90 per cent were discovered to have tuberculosis 0.3 per cent were found suffering from other incapacitating forms of chest diseases and 5.7 per cent showed evidence of contact during childhood with infectious cases of pulmonary tuberculosis. A comparison of these rejection rates with those of 1941-44, when out of 49,336 recruits only 71 (0.14 per cent) were rejected on account of respiratory diseases, illustrated the value of mass radiography.<sup>40</sup>

#### MEDICAL CATEGORISATION

The following medical categories for VCOs, IORs and NCs(E) of the Indian Army had been in use during the war.<sup>41</sup>

##### *Category "A"*

- Can see to shoot or drive
- Can undergo severe strain
- Without defects of locomotion
- With only minor (remediable) disabilities

In the opinion of the medical officer fit for general service in any area and in any theatre of war

##### *Category "B"*

- Can see to shoot or drive
- Can undergo exertion not involving severe strain
- With slight defects of locomotion not incapacitating from normal movements of daily work
- With moderate degrees of disability not interfering with the performance of normal work

In the opinion of the medical officer fit for service overseas or in India not involving general service, but only service normally encountered at the base or on the lines of communication

##### *Category "C"*

- Can see for ordinary purposes
- Can undergo exertion not involving severe strain
- With moderate degrees of disability not interfering with the performance of normal duties
- With defects of locomotion not interfering with the performance of normal garrison duties in India

##### *Category "D"*

Men who are under medical care pending their final categorisation and disposal i.e., men who are temporarily unfit

<sup>40</sup> Z 18721/H(M) H/1/31/H(M)

<sup>41</sup> IAO 2057/1942



*Category "E"*

Men who are permanently unfit for military service.

Combatant recruits could only be enrolled in category A. A certain relaxation was, however, permitted for technical personnel, clerks, etc., provided the medical officer considered them capable of performing the duties for which they were required. The enrolment of even category C personnel for these classes was permitted.

Upgrading from a lower to a higher category of temporarily categorised personnel was carried out by the officer in medical charge of troops. Reduction from a higher to a lower category of any individual could only be carried out by a medical board with the officer commanding hospital as the president. The opinion of the board was recorded on A.F.B.-179(c) (modified for India) in duplicate. Approval by the ADMS was not required.

All category B and C personnel, whether temporary or permanent, were fit personnel who were employed on suitable duties and not as a routine allowed to attend daily sick parades. All B and C category personnel whether temporary or permanent for whom employment could not be found in training battalions or equivalent units were posted away to a unit of their regiment or corps for such duties as they were fit for in accordance with their categorisation.

Personnel who were temporarily categorised as other than category A were medically examined at fortnightly intervals to ascertain if they were fit to be placed in a higher medical category.

To ensure that the initial categorisation of wounded personnel discharged from hospital to training battalions on completion of medical treatment was carried out in the most practical manner possible, both from a medical and military point of view, an experienced combatant officer attended all medical boards held on such personnel. This officer was not a member of the medical board but acted as a technical military assessor and adviser to the board. He assisted the board in determining for what type of military employment men were fitted, thus ensuring that they were placed in the correct category. Administrative commandants of stations were responsible for detailing suitable combatant officers for this duty on the request of officer commanding hospitals.

Special instructions governing disposal of temporarily categorised B and C cases were :—

(1) If medical boards decided that the injuries of the soldiers were such that they could be fit for duty within six months but that recovery could depend on the individual's co-operation, the men could be granted special war leave up to six months, on full pay for the first month and one-third pay of the substantive rank held for the remaining period. They were to be granted free passages to and from their homes. In suitable cases, however, it was open to medical boards to recommend periods of sick leave under the existing procedure.

(11) Officers commanding depots, etc., were to ensure that before the men selected by them proceeded on special leave, they were clearly told by experienced officers that they were being sent on leave to give them a chance to cure themselves at their homes since the medical authorities considered that they could recover fully. If, however, they did not help themselves and had not recovered on their return, they were again to be medically boarded and were liable to be discharged without any pension.

At the end of this special war leave the soldiers were brought before medical boards and were classified as follows: (a) fit for service, or (b) unfit for service, (i) as a result of their injuries or (ii) as a result of deliberate retardation by the soldier of his recovery.

Cases of soldiers found unfit under paragraph (b)(i) above were dealt with under the ordinary rules, and they were granted the pensions or gratuities to which they were entitled. Men falling under paragraph (b)(ii) above were discharged. Under Rule 201, *Pension Regulations for the Army in India, Part II*, such men forfeited all claim to any class of pension or gratuity but in such cases an *ex gratia* award of pension or gratuity not exceeding the amount they had earned by service was considered on the merits of each case, and a recommendation was submitted for the orders of the Government of India.

In the case of soldiers coming under paragraph (b)(i) above, re-enrolment in suitable garrison or other static units was permissible and every effort was made to enrol as many men as possible.

Discretion as to which soldiers were to be dealt with under these instructions was vested in officers commanding training centres and battalions.

*Records of categorisation.* Record of categorisation was entered by the medical officer in charge of the cases in A F B 64-M, and in returning the case direct to his unit, officers commanding hospitals were required to submit one copy of A F B 179(c) (modified for India) to the officer commanding the individual's unit. The officer commanding the unit notified the record office or 2nd Echelon of changes of category in such cases.

In all other cases the A F B 179(c) was to be sent to the individual's record office or to 2nd Echelon when the unit was administered by 2nd Echelon, which was to be ascertained by a slip which was pasted in the individual's pay book. The duplicate copy of the A F B 179(c) was to be retained by the hospital.

The medical classification of the British soldier was more elaborate than the Indian. Its various permutations and combinations of physical characteristics numbered not less than 72. The pamphlet *Medical Categories for Other Ranks* 1943 listed the followings:—

A1 First degree constitutionally, V S 1, 2 or 3, i.e., shooting standard of vision, H S 1 or 2, no foot defects.

A2 As for A1 except that slight foot defects are present.

A3 First degree constitutionally, V S 4, i.e., driving standard of vision, H S 1 or 2, slight foot defects may be present.

A4 First degree constitutionally, V S 5 or 6, too slow for shooting or driving but sufficient for ordinary purposes, H S. 1 or 2, no foot defects

A5. As for A4, except that slight foot defects are present.

B1 Second degree constitutionally, V.S 1, 2 or 3, H S. 1 or 2, no foot defects

B2a. Second degree constitutionally, otherwise as for A3.

B5. Second degree constitutionally, V.S 5 or 6, H.S 1 or 2; slight foot defects may be present

B6 Has defective hearing (H S 3), otherwise fit for higher category

B7 First or second degree constitutionally, V S. 1, 2 or 3, H S. 1 or 2, marked foot defects are present

C. A category not sub-divided but consisting of.

(a) men with V S 4, 5 or 6, H S. 1, 2 or 3, and fit for a higher category but for marked foot defects.

(b) men of third degree constitution, with V S. 1 to 6, and H S. 1 to 3.

In November 1943 category C was sub-divided into C1 comprising men who in spite of third degree constitution and marked physical disability were yet fit for employment abroad according to their medical and physical capabilities and C2 for those who on physical or psychiatric grounds must be regarded as suitable only for home service. Hence classification as C2 became the only means of ensuring that a man was not posted to an overseas theatre even if he had only a slight disability which was likely to be aggravated by certain climatic conditions. It was later agreed that a soldier should not be placed in category C2 merely to prevent his employment overseas. In future every man was to be classified strictly in accordance with his physical capacity and placed in the corresponding category irrespective of other considerations. If, owing to the nature or degree of any particular disability or for any other reason, he was to be regarded as unfit for service in a tropical or sub-tropical region but fit for temperate climate the fact was to be indicated by the addition of letters NT, i.e. non-tropical e.g. A1 (NT). Similarly a soldier unfit for overseas service on account of a specific physical or psychiatric disability was to be allotted letters HS i.e. home service e.g. A1 (HS). The final changes were incorporated in the form of an amendment to *Medical Categories for Other Ranks* 1944 published in September 1945.

Considerable interest was created by the PULHEEMS originally introduced by the Canadian Army. Under this scheme the soldier was required to be examined under seven sub-divisions of bodily and mental functions. These qualities were designated as follows.—

*P. Physical capacity* This refers to the man's physical capacity for muscular effort as a trained man. It should be a guide to his body-build

and musculature and a note is given of functional requirements under each degree of the quality. The degree of P should be assessed on body build (including eye and ear, nose and throat conditions) and should not be correlated either with the upper limb or locomotor qualities.

*U Upper limbs* This refers to the ability of the man to perform muscular work and in certain cases to handle weapons.

*L Locomotion* This refers to the man's locomotor efficiency. It is important that it be clearly understood that L refers to the functional efficiency of the man's locomotor system and not to any anatomical defect. Thus the fact that a man's feet happen to have flattened arches or are disfigured by bunions is not expressed under L. If the man can march with efficiency this will be expressed as L1 or L2, whether his feet are aesthetically pleasing or not. The quality L is, therefore, in assessment of locomotor function and no limited connection must be established between L and anatomical appearance. Locomotor function is dependent on a wide range of anatomical structure. The functional efficiency of the lower vertebrae, pelvis, hip joints, thighs, knees and legs all enter in the assessment of L and these structures must all be considered when the assessment is made.

*H Hearing* (hearing acuity) *EE Eyesight* (visual acuity), *M Mental capacity*, *S Stability*

There are eight degrees of each quality but all of these are not in use in the case of U, L, H, M and S as shown in the following table —

P	U	L	H	E	E	M	S
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4				4	4		
5				5	5		
6				6	6		6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8

Apart from EE the degrees of each quality refer to functional ability.

Degrees 1 and 4 imply functional efficiency above the average. Degrees 2 and 5 imply good average functional efficiency. Degrees 3, 6 and 7 imply diminishing functional efficiency, and degree 8 implies disability of an advanced degree precluding service employment. In the case of M and S qualities, degree 1 implies normal functional efficiency and above.

This system was not applied to all the troops of the British Army during the war. In October 1946 orders were issued in India Command that steps would be taken for all British service personnel of the following categories to be medically examined and reclassified in accordance with the new system.

(a) *Officers*

(i) All officers holding permanent commissions on the Active List of the Regular Army.

(ii) All officers holding temporary commissions other than emergency *e.g.*, short service, temporary, temporary short service, etc., which expire after 1 July 1947.

(iii) All officers holding emergency or other commissions to whom Regulations for Release from the Army 1946 apply, who are in Age and Service Group 55 and later, or who, having deferred their release, are likely to be serving in the Army on 1 July 1947

(b) *Other Ranks*

(i) All personnel enlisted into the G.S.C. on or after 1 July 1946.

(ii) All soldiers serving on normal Regular Army engagements who on 1 July 1946 had more than one year to complete with the colours on their current engagements.

(iii) All other soldiers in Age and Service Groups 55 and later.

(iv) All soldiers whether Regular Army or Non-Regular Army who defer their release until general demobilisation, or for one or two years, and as a result will still be serving on 1 July 1947.

(v) All soldiers enlisting under the extended Service Scheme details of which were to be announced later.

## MEDICAL STATISTICS OF RECRUITMENT

During the period 1 April 1939 to 31 March 1946, the total number of recruits examined by the recruiting medical officers was 2,680,133, including 575,419 (21·67 per cent.) rejected on medical advice. The larger number of rejections was on account of venereal diseases (18·65 per cent.), defective vision (16·21 per cent.), disordered action of heart (13·33 per cent.), malaria (12·74 per cent. etc.) The yearly number of recruits examined and rejected by the recruiting medical officers and their respective percentage of rejections is shown below —

*Number of recruits examined and rejected during 1941-46*

Period ending 31 March	Number of recruits examined	Number of recruits rejected	Percentage rejected
1941	2,51,272	62,971	24 50
1942	4,93,635	85,884	17 30
1943	7,42,638	1,35,690	18 47
1944	4,76,844	1,11,369	23 27
1945	4,82,351	1,22,829	24 79
1946	2,33,393	56,676	24 33

*Statement showing percentage of rejection of recruits examined by the RMOs during the period 1 April 1939 to 31 March 1946*

Diseases	1-4-1939 to 31-3-1940	1-4-1940 to 31-3-1941	1-4-1941 to 31-3-1942	1-4-1942 to 31-3-1943	1-4-1943 to 31-3-1944	1-4-1944 to 31-3-1945	1-4-1945 to 31-3-1946
Malaria	2 4	2 7	1 02	1 13	1 79	2 43	1 27
Tuberculosis (pulmonary)	0 1	0 04	0 06	0 16	0 14	0 15	0 13
Tuberculosis (other organs)	0 1	0 03	0 04	0 09	0 10	0 06	0 12
Veneral diseases	1 2	1 3	2 1	2 90	4 29	3 41	3 41
Other diseases due to infection	0 1	0 2	0 06	0 25	0 13	0 25	0 24
Diseases of the nervous system	0 1	0 06	0 07	0 13	0 15	0 14	0 13
Defective vision	5 0	2 5	2 1	1 92	1 31	1 43	1 95
Trachoma	5 60	2 1	0 8	0 59	0 59	1 09	0 80
Other eye affections	0 70	0 5	0 3	0 19	0 25	0 25	0 36
Otitis media	3 00	2 09	1 0	0 18	0 17	0 33	0 41
Defective hearing	0 10	0 06	0 08	0 09	0 09	0 09	0 14
Other ear diseases	0 60	0 1	0 07	0 09	0 08	0 10	0 11
Diseases of nose and throat	0 30	0 2	0 05	0 05	0 07	0 09	0 13
Valvular diseases of heart	1 20	0 9	1 02	1 19	1 60	1 68	2 00
Disordered action of heart	4 80	1 9	1 1	1 32	1 41	1 49	1 31
Varicose veins	1 90	0 4	0 3	0 29	0 26	0 23	0 43
Haemorrhoids	0 50	0 3	0 2	0 19	0 46	0 40	0 26
Varicocele	0 60	0 6	0 3	0 76	0 56	0 31	0 57
Other diseases of circulatory system	0 10	0 03	0 05	0 06	0 06	0 09	0 09
Anaemia	0 50	0 3	0 2	0 39	0 66	0 64	0 58
Gout	1 30	0 3	0 1	0 19	0 26	0 23	0 26
Respiratory diseases excluding tuberculosis	0 50	0 4	0 2	0 12	0 11	0 47	0 39
Pyorrhoea	1 10	0 4	0 2	0 25	0 26	0 39	0 40
Loss or decay of teeth	0 10	0 1	0 1	0 22	0 25	0 25	0 36
Hernia	0 70	0 6	0 8	0 95	0 77	0 76	0 75
Other diseases of digestive system	0 10	0 07	0 05	0 11	0 10	0 07	0 18
Ankylosis of joint	0 60	0 06	0 09	0 15	0 17	0 11	0 18
Flat feet	1 30	0 1	0 1	0 12	0 17	0 18	0 26
Knock knee	1 00	0 2	0 1	0 19	0 25	0 27	0 33
Curvature of spine	0 30	0 2	0 07	0 09	0 12	0 10	0 10
Other deformities	1 60	1 0	0 05	0 51	0 87	1 09	0 97
Skin diseases	1 10	0 8	0 7	0 81	1 61	1 87	1 51
Poor physique	0 50	0 3	0 4	0 71	0 88	0 88	0 96
Other causes	5 20	2 14	1 8	2 00	3 24	3 41	3 20
Total percentage	44 30	22 98	15 68	18 47	23 27	24 79	24 33

### MEDICAL ASPECT OF RECRUITMENT TO THE RIN, THE IAF AND THE WAC(I)

In November 1941, the D of R became responsible for all the three services, and separate Naval and IAF recruiting sections were set up in the recruiting organisation.

#### RIN<sup>42</sup>

Prior to the amalgamation in 1941, recruits for the RIN received only a preliminary medical examination by a naval medical officer of a touring team before being sent to the RIN Depot, Bombay, or in the case of the boys, to the Boys Training Centre, Karachi. At these bases, the recruits were finally examined and those not physically fit were rejected. After the amalgamation, recruits for the RIN were medically examined by the military RMOs or civilian doctors appointed for this purpose, there being no separate RIN, RMOs. Later, with the introduction of the 'Filter Scheme', the commanding officer of the appropriate RRC or an officer appointed by him, a naval officer if available, inspected the recruits for the RIN and arranged that those obviously below the prescribed physical standard should be examined by the 'Filter Medical Officer'. A report on such cases was then sent to the commanding officer, RIN Depot, Bombay.<sup>43</sup> All RIN recruits proceeded from RRCs to the RIN Depot where they were given a thorough medical examination and those found physically unfit were recommended for rejection. Certain recruits with minor condonable defects were retained provided there was a reasonable prospect of their becoming fit and attaining the prescribed physical standard. The decision to discharge or retain a man rested with the commanding officer RIN Depot. This final medical check-up at the base depot became necessary to eliminate the high wastage during training of those who should not have been recruited at all.

*Physical standards* · Before the war, entry to the RIN was through the Boys' Training Establishments. The minimum physical standards prescribed were .—

Age	Height	Weight	Chest	Vision	Hearing	Colour Vision
15-17	5'-1"	100 lbs	(Mean) 30"	6/6 both eyes	Normal	Normal

If no physical defects or diseases were present and the 'Boy' was otherwise fit for hard work during training and fulfilled the above standards he was accepted.<sup>44</sup> During the war, standards for the 'Boy' were modified to meet the expanding demands as follows .—<sup>45</sup>

Age	Height	Weight	Chest	Vision	Hearing	Colour Vision
15-17½	5'	90 lbs.	(Mean) 28"-29"	6/6 both eyes	Normal	Normal

<sup>42</sup> See also page 40    <sup>43</sup> A/3/31/H(M)    <sup>44</sup> Pamphlet *India's Navy*    <sup>45</sup> RINFO 318/1944

Recruitment was also opened during the war to all men between the ages of eighteen and thirty years and in certain branches up to thirty-five years. Recruits enlisted direct were required to be of the prescribed standard and no latitude was allowed to RMOs to accept below-standard direct recruits for the Navy. The physical standards laid down were —

Height (minimum)	Weight (minimum)	Chest (minimum)
5'-2"	105 lbs	30"

Vision, including colour vision, hearing and general health was to be normal

*Relaxation in standards* These were later modified in the case of certain technical branches. Thus for the medical, writers and school master branches the following standards were accepted —<sup>46</sup>

Height	Weight	Chest	Visual Standards
5'	94 lbs	29"	Not less than 6/12 in both eyes after correction with glasses

Defects of colour vision and other minor disabilities did not constitute a bar if the recruit was otherwise fit for the duties for which he was recruited

#### RIAF<sup>47</sup>

*Officers* In the beginning arrangements were made at many of the provincial centres for the examination of potential aircrews by civilian medical practitioners, who were provided with instructions which gave them the necessary data to assess the physical standards required for aircrew, and also a detailed directive on the standards required for ground duties. This arrangement, though very convenient at the time, was not satisfactory, as a very high percentage of those passed fit at the provincial centres, particularly candidates for flying, were later found to be below the required standards at the Central Medical Board.

About two thirds of the candidates examined for flying duties were found unsuitable. The rejections were made on various grounds, viz, defective visual acuity, colour blindness etc. but nearly one-half of the total rejections were found temporarily unfit because of cardiovascular inefficiency. This lack of physical tone was, in many cases, obviously the result of insufficient exercise. Instructions for improving physical tone were given to these candidates. It was thus found possible, after a period of two to three months, to accept most of them on re-examination.

In an examination of Indian candidates for flying it was remarkable how frequently high pulse rates were encountered in candidates who were obviously fit and whose cardiovascular system was otherwise normal. Various physiological reasons were suggested

<sup>46</sup> Separate statistical information regarding the causes of rejection is not available for the RIN

<sup>47</sup> H/5/54/H(M) See also page 34



for the relatively high pulse rate in Indians but there is no doubt that in such cases the emotional element was always the most important.

In 1941, it became necessary to standardise the arrangements for conducting medical examinations. Most of the civilian medical practitioners engaged on preliminary medical examination of air force candidates were given an intensive course of instruction in air force procedure at the Medical Directorate of Air Headquarters, India, or at the School of Instruction which was formed at Lahore under the direction of the President of the Central Medical Board. They were also trained at this school in the medical examination of flying personnel for fitness for A, B and other civilian licences.

Candidates passed fit at preliminary medical examinations were sent to the GHQ Selection Board. Those selected there, were sent for final medical examination at the Central Medical Board. Calling up notices were later sent to the candidates who were fit, instructing them to report to the Initial Training Wing. Later this procedure was changed and fit candidates reported straight to the Initial Training Wing after their medical board

It was found that in ten months, between September 1943, and July 1944, of the 102 candidates examined 52 were temporarily unfit, 11 premanently unfit and 39 fit. Of the 52 temporary unfit, 7 failed to report for re-examination. Possibly a few out of the temporarily unfit candidates, who failed to return for re-examination, might have been accepted later had accommodation been available for them to stay in Delhi. In the absence of such accommodation the Central Medical Board adopted the following procedure .—

For cases requiring investigations, operations, prolonged treatment, etc. to render them fit, the President, Central Medical Board, gave the candidates letters addressed to the nearest hospital asking for the necessary laboratory investigations and specialist examinations to be carried out. Authority had been obtained for candidates for the IAF to be admitted to military hospitals for the purpose.

For cases not requiring specialised treatment or investigations, the President, Central Medical Board, advised the candidate on measures to be taken before his next examination.

*Airmen* . In 1940, recruitment for the IAF was actively carried out throughout the year to an ever increasing extent. Recruiting centres were established at Bombay, Calcutta, Madras, Karachi, Lahore and Lucknow, and recruits were medically examined according to the standards laid down for RAF personnel. In the case of candidates, who were otherwise physically fit, and especially those whose possession of technical knowledge made their selection particularly desirable, some relaxation, relating in particular to weight, height and chest measurements, was allowed in the standards. The total number found unfit ranged from 20 to 30 per cent on the first examination. Of these rejections 60 per cent. were made on the ground of poor physique and 20 per cent. for various other medical

reasons. On a reassessment or after appropriate surgical or medical treatment more than half of the originally rejected candidates were found fit for acceptance.

The medical examination of recruits was initially carried out at the Army recruiting centres. A second medical examination was held at the Initial Training Centre at Lahore. This was necessary to prevent sending unfit recruits<sup>48</sup> to the training centres. To eliminate this wastage at the source and improve facilities for medical examination at recruiting sub-centres, improvements were needed in medical examination rooms and their equipment as well as in maintaining proper statistics. IAF medical officers were, therefore, posted in September 1943, to each of the headquarters of the technical recruiting areas to act as advisers to the TROs. Soon after their posting useful results were apparent in the Bombay and Pooné areas.

*Physical standards—IAF* The peacetime physical standards of recruitment to the IAF continued in force until 1943<sup>49</sup>. The main points were briefly as follows —

(i) *Hearing* Hearing on either side must be acute and equal to the ready perception of a forced whisper at twenty feet.

(ii) *Height, weight and body build* These were considered together. There was no minimum standard of height except that candidates for piloting duties with a leg length of 39 inches combined with a height of 64 inches could be accepted. Candidates who were found to have

<sup>48</sup> Training wastage amongst the IAF recruits was very high. An analysis of the cases of pilots rejected was undertaken in 1943. It was observed after a general survey that the reasons for rejection could be classified as follows:

- (i) Physical including disabilities like defective vision, air sickness, short legs or other general physical defects.
- (ii) Mental including inability to co-ordinate hands with feet, nervous and kindred complaints, inability to learn and a lack of mechanical knowledge.
- (iii) Moral fibre. Inability to endure fear reactions and lack of courage thereby forfeiting the confidence of the commanding officer without being subjected to flying stress and strain.

The percentage of rejections in different establishments in different categories in all establishments and in different categories and establishments was as follows:

*Percentage of rejections in different establishments*

Initial Training Wing	17
Elementary Flying Training School	61
Service Flying Training School	15
Operational Training Unit	7

*Percentage of wastage in different categories in all establishments*

Physical	28
Mental	70
Moral	2

*Percentage of wastage in different categories and establishments*

	Physical	Mental	Moral
Initial Training Wing	6	94	
Elementary Flying Training School	35	63	2
Service Flying Training School	24	73	2
Operational Training Unit	10	40	20

<sup>49</sup> Air Publication No. 130

a leg length of less than 39 inches and/or a height of less than 64 inches could be given a practical test in a service aircraft to ascertain :—

- (a) that they had an unobstructed view from the cockpit, and
- (b) that they were able to manipulate rudder bar and brakes.

Candidates for observer duties with a height of 62 inches, and candidates for air gunnery duties with a height of not less than 62 inches and not exceeding 72 inches were acceptable. The terms "body-build" expressed the relationship between age, height, and weight.

(iii) *Chest measurement* The shape of the chest was, however, more important than its actual measurement, a long narrow chest being rarely found in a physically efficient candidate.

(iv) *Visual acuity*

(a) *Permanent flying personnel*

- (i) A candidate with 6/6 vision in each eye, without the aid of correcting spectacles was accepted
- (ii) When the visual acuity was 6/9 in each eye, acceptance was allowed provided that 6/6 in each eye could be obtained by correction and that there was no suggestion of commencing myopia.
- (iii) When the visual acuity in either eye was worse than 6/9 but not worse than 6/18, the candidate was required to be deferred for at least three months. If at the end of that time he had improved to 6/9, acceptance was possible. Visual acuity below 6/18 in either eye entailed rejection

(b) *For selection of permanent flying personnel from those already serving as temporary personnel*

The standard of visual acuity was 6/12 or better in each eye, correctable to 6/6. This standard, however, could be reduced at the discretion of the consultant in ophthalmology

(c) *Temporary flying personnel*

The lowest visual acuity acceptable at first examination was 6/12 in either eye, if vision could be improved to 6/6 by glasses and if the examiner was satisfied that no further reduction of acuity was likely during the period of service contemplated.

Visual acuity worse than 6/18 entailed permanent rejection

(v) *Colour vision* Responses to the examination of colour vision fell into three groups—colour normal, colour defective safe, and colour defective unsafe. Candidates classified in the third group were rejected <sup>50</sup>

Early in 1943, it was decided to adopt the Army standards for airmen (ground trades) to improve recruitment to the IAF as many RMOs had believed erroneously that the highest standards of vision, physical fitness etc., were required for all grades of the IAF. However, during the year, it became increasingly apparent that lowering the standard to that of the Army was unsatisfactory. In the RAF, sight, hearing and other standards differed for different trades. Standards were, therefore, laid down for the IAF based largely on those of the RAF, and were issued to all concerned in August 1943.<sup>51</sup>

The physical standards adopted in 1943 were, height 5'-0", expanded chest with 2" expansion 32" and weight 105 pounds. The permissible condonation proved unsatisfactory and a large number of underweights reached RTCs. It was, therefore, decided, late in 1943, that no condonation should be allowed below 100 pounds except for those educationally suitable recruits who were likely to improve to the required standard. Such candidates could be certified, by the TRMOs of the IAF. It soon became clear, however, that as the TRMOs were unable to cover all the recruiting sub-centres, many recruits were being lost to the service. Accordingly the weight was fixed at a minimum of 100 pounds but applicants below that weight could be accepted provided they were certified as likely to improve to the prescribed standard by any RMO. In September 1944, it was found necessary to cancel these standards<sup>32</sup>. Physical standards of height, chest measurement and weight were, thereafter, in accordance with the orders issued from time to time.

*Recruiting statistics* Accurate medical statistics were not kept in the early years of the war, because the procedure adopted at the various centres differed considerably. At the end of 1943 instructions were issued for certain statistics to be maintained separately for the RIAF recruits. The table below shows the number of recruits examined for the RIAF during 1944 and 1945 (up to August) and the percentage of rejections on medical grounds —

## 1944

Area	Number of recruits medically examined	Number passed fit	Percentage passed fit	Number rejected on medical grounds	Percentage of rejection on medical grounds
West	4,560	3,459	75.85	1,007	22.08
North	3,732	3,104	83.17	612	16.39
South	8,297	6,254	75.37	2,038	24.56
East	4,782	3,607	75.42	942	19.69
Central*	495	329	66.46	154	31.11
Total	21,866	16,753	76.61	4,753	21.74

\* The area was formed in October 1944. The figures are therefore for October, November and December 1944.

## 1945

West	1,910	1,260	66.07	615	32.19
North	1,607	1,278	79.52	310	19.29
South	2,923	2,080	71.15	847	28.97
East	3,094	2,142	69.23	737	23.82
Central†	328	239	72.87	86	26.21
Total	9,862	6,999	70.97	2,595	26.31

† Figures available for January and February 1945 only. The principal causes of rejection on medical grounds in the RIAF are given below.

<sup>32</sup> Corrigendum No. 59 dated 26 September 1944 to AFO(I)367/1943

*Principal causes of Rejections on medical grounds—RIAF*

Disease	Number rejected in 1944	Percentage of rejection in 1944	Number rejected in 1945	Percentage of rejection in 1945
1	2	3	4	5
Malaria	126	0 57	102	0 10
Tuberculosis (pulmonary)	21	0 09	13	0 13
Tuberculosis (other organs)	8	0 03	1	0 01
Venereal diseases	545	2 49	194	1 '96
Other diseases due to infection	15	0 07	5	0 05
Diseases of the nervous system	30	0 13	10	0 10
Defective vision	501	2 30	188	1 90
Trachoma	128	0 58	74	0 75
Other eye affections	29	0 13	4	0 04
Otitis media	100	0 45	131	1 33
Defective hearing	62	0 28	17	0 17
Other ear diseases	2	0 009	24	0 24
Diseases of nose and throat	31	0 14	20	0 20
Valvular diseases of heart	284	1 29	128	1 29
Disordered action of heart	426	1 95	195	1 97
Varicose veins	25	0 11	21	0 21
Haemorrhoids	29	0 13	23	0 23
Varicocele	36	0 16	12	0 12
Other diseases of circulatory system	10	0 04	1	0 01
Anaemia	50	0 23	14	0 14
Goitre	9	0 04	5	0 05
Respiratory diseases excluding tuberculosis	94	0 43	28	0 28
Pyorrhoea	43	0 19	23	0 23
Loss or decay of teeth	35	0 16	38	0 38
Hernia	136	0 62	47	0 47
Other diseases of digestive system	9	0 04	4	0 04
Ankylosis of joints	28	0 13	6	0 06
Flat feet	42	0 19	31	0 31
Knock knee	35	0 16	40	0 40
Curvature of spine	16	0 07	3	0 30
Other deformities	149	0 68	72	0 73
Skin diseases	342	1 58	237	2 40
Poor physique	548	2 50	471	4 78
Other causes	809	3 70	413	4 18
Total	4,753	21 67	2,595	25 56

*Secondary examination* : All airmen recruits passed fit at the different areas were sent to No. 1 and No. 2 RTCs for second examination. These examinations continued throughout 1944 and 1945. This secondary examination corresponded to the Army Second

Filter except that it was not part of the recruiting organisation. During 1944, 16,753 recruits were examined at RTCs, of whom 788 (4·7 per cent) were rejected on medical grounds. During 1945 the rejection rate rose up to 7·61 per cent. It seems likely, therefore, that the rise in rejection rate at RTCs during 1945 was due largely to the stringent standards of medical examination combined with a progressive decline in the general standard of recruits then being enlisted. An analysis of the rejections at RTCs for the years 1944 and 1945 is as follows —

Diseases	Number rejected in 1944	Percentage of rejection in 1944	Number rejected in 1945	Percentage of rejection in 1945
Malaria	7	0·04	16	0·22
Tuberculosis (pulmonary)	4	0·02	3	0·04
Veneral diseases	71	0·42	22	0·31
Tuberculosis (other organs)	1	0·006	1	0·01
Other diseases due to infection	12	0·07	12	0·17
Diseases of the nervous system	71	0·42	25	0·35
Defective vision	16	0·09	14	0·20
Trachoma	8	0·04	10	0·14
Other eye affections	48	0·28	28	0·40
Defective hearing	26	0·15	7	0·10
Otitis media	77	0·45	115	1·64
Other ear diseases	5	0·02	4	0·05
Diseases of nose and throat	3	0·01	6	0·08
Valvular diseases of heart	10	0·06	4	0·05
Disordered action of heart	4	0·02		
Varicose veins	2	0·01	7	0·10
Haemorrhoids	6	0·03	3	0·04
Varicocele	1	0·006	1	0·01
Other diseases of the circulatory system	1	0·006	1	0·01
Anaemia	1	0·006	1	0·01
Gout	1	0·006	1	0·01
Respiratory diseases excluding tuberculosis	6	0·03	13	0·18
Pyorrhoea				
Loss or decay of teeth			1	0·01
Hernia	8	0·04	15	0·21
Other diseases of the digestive system	2	0·01	1	0·01
Ankylosis of joints	9	0·05	2	0·02
Flat feet	2	0·01		
Knock knee	1	0·006		
Curvature of spine				
Other deformities	26	0·15	3	0·32
Skin diseases	10	0·06	5	0·71
Poor physique	318	1·89	156	2·23
Other causes	31	0·18	36	0·51
Total	788	4·60	533	8·14

After consultation with the TROs and the Recruiting Directorate, it was decided that recruits rejected from the RTCs on medical grounds should be classified under two headings ; those in whom a disability had become manifest following enrolment and those who should never have been recruited. The latter were sent back to the area where they were recruited and the recruiting officers were informed where errors had been committed. Additional medical equipment and other facilities were provided at all recruiting centres and sub-centres.

### WAC(I)

WAC(I) being an entirely new corps no instructions regarding physical standards, medical examination and age limits existed in peace, nor in the early months of the existence of the corps. In 1943, instructions were issued that WAC(I) recruits should be examined by women medical officers of the IAMC/RAMC under arrangements to be made by the ADMS concerned. Where women officers were not available the examination could be carried out by the staff surgeon nearest to the place of recruitment, or by a private medical practitioner preferably a woman, on payment of the usual recruiting fees.<sup>53</sup> Every recruit was required to be 'physically fit in every respect for service in the WAC(I)', and the examining medical officer was responsible for judging her physical fitness for the work for which she was being enrolled. Instructions for the medical examination of WAC(I) recruits were based on the medical examination of recruits for the Indian Army except that visual standards using test type were laid down as follows :—

#### Standard I

<i>Right eye</i>	<i>Left eye</i>
Distant vision V 6/6	V 6/6
Near vision Reads 0·6	Reads 0·6

#### Standard II

<i>Better eye</i>	<i>Worse eye</i>
Distant vision V 6/6	V, without glasses = not below 6/60 and after correction with glasses not below 6/24
Near Vision—Reads 0·6	Reads 1

#### Standard III

<i>Better eye</i>	<i>Worse eye</i>
Distant vision—V without glasses not below 6/60 and after correction with glasses not below 6/6	V without glasses not below 6/60 and after correction with glasses not below 6/24
Near Vision—Reads 0·8	Reads 1

It will be seen that these visual standards were higher than those applied to the Indian Army. Inability to distinguish the

<sup>53</sup> F/6729/H(M)

principal colour was not to be a cause for rejection. Recruits were posted to the various sections of the corps in accordance with the following standards —

Standard I	Anti-aircraft spotters
Standard II	MT drivers
Standard III	Clerks, Signallers (telegraphic) and general duties

The various causes for rejection mentioned in the instructions were not, however, intended to be rigidly applied and recruits having minor defects were not rejected. Those suffering from the diseases or defects mentioned below, were ordinarily accepted: mild degrees of varix, knock knee, hammer toe, slight stammering, slight deformities of feet and toes, and flat foot, slight squint, slight pyorrhoea. Pregnant women were rejected but nursing mothers who were capable of full employment were accepted. The minimum age limit for recruitment to the WAC(I) was seventeen years, but it was agreed in October 1944, that this age might be lowered to sixteen years.<sup>54</sup> Following the representation that the standards of physical fitness for all WAC(I) recruits were higher than those required of many Army recruits, the recruitment of women in categories A, B and C as follows was authorised —

*Category 'A'* Visual standard I or II, can undergo severe strain, is without defects of locomotion, or has only minor remediable defects, and is capable of service overseas or in India, including service in the plains in hot weather.

*Category 'B'* Visual standard, I, II or III,<sup>55</sup> can undergo exertion not involving severe strain, has slight defects of locomotion (but is not incapacitated from performing normal work) or with moderate degrees of non progressive disability not interfering with performance of normal work, is fit for service normally encountered at base or lines of communication in India, including service in the plains in hot weather.

*Category 'C'* Visual standard I, II or III, can undergo moderate exertion, with moderate disabilities not interfering with the performance of sedentary duties in India, including service in the plains in hot weather.

The dental standards were also the same as those for the Army but it was later decided that women in possession of satisfactory and well fitting dentures which enabled them to comply with the standard laid down could be acceptable. In October 1944, it was found necessary to issue instructions for the rejection<sup>56</sup> of all applicants suffering from any chronic disabling gynaecological condition such as dysmenorrhoea or menorrhagia of a severity necessitating absence from duty every month, chronic backache, or severe leucorrhoea.

The 'Selection of Personnel Procedure' was applied to WAC(I) recruits who were posted to various types of work in accordance with the grading obtained.

<sup>54</sup> F/6729/H(M)

<sup>55</sup> See IAO 1186/1944

<sup>56</sup> No statistics are available concerning the causes of rejection on medical grounds.



## CHAPTER X

# Mobilisation

Mobilisation is the process by which an armed force passes from a peace to a war basis ; it may either be general or progressive. The arrangements for mobilisation provide for the calling up of reserves and the equipping of units with stores required for the war. It was considered unlikely in 1939 that there would be any general mobilisation of the Army in India. Mobilisation was, however, intended to be progressive, the various components of the Army being mobilised as and when required, according to the circumstances. The general procedure to bring the Army to a war basis was laid down in *Mobilisation Regulations (India)* which were intended principally for existing units and formations and were, therefore, of general application to all regular units, establishments, services and departments of the Army in India. It was also explained in these regulations that mobilisation might at any time be governed by special instructions issued by Army Headquarters, as the regulations by themselves could not be in the nature of final instructions but were concerned primarily with laying down principles and ensuring that all necessary detailed arrangements were made, as far as they could be foreseen and legislated for in peace time.

Reviewing the situation in April 1939, Army Headquarters issued a letter concerning an order for general mobilisation wherein it was pointed out that the issue of such an order during the early months of hostilities were exceedingly improbable. In August 1939, Army Headquarters issued instructions that in future mobilisation would be known as 'progressive'. It was further explained that the sequence in which this 'progressive mobilisation' would take place would depend largely on the international situation and that it was the responsibility of the General Staff at Army Headquarters to decide the priority of mobilisation.

1938-39

Up to 1938, the only plan of operation so far as India was concerned was the 'Pink Plan' and it dealt only with the operations in the event of war with Afghanistan. The G-in-C in India decided in August 1938, that the 'Pink Plan' must be regarded as obsolete and a new plan was ordered to be prepared, which came to be known as the 'Plan of Operations 1938'. The various tasks of the Indian Army under this plan were frontier defence, internal security, coastal defence and general reserve. The general reserve was at the disposal of Army Headquarters and could be used when required for the defence of India and was composed of units allotted for service overseas in collaboration with other Imperial forces for Imperial defence purposes. These units were known as 'External Defence Troops'. Their strength was approximately one division, organised into three self contained brigade groups, under Headquarters Deccan

District It also included a mobile division<sup>1</sup> The strength of the Army in India in September 1939 was 352,213

The following medical units were provided in the 'Plan of Operations 1938' —

Field ambulances	21
Cavalry field ambulances	2
Armoured brigade field ambulance	1
Field hygiene sections	11
Bearer unit	1
Casualty clearing stations	5
Staging sections	19
General hospitals	9*
Convalescent depots	4
Ambulance trains	4
Reserve base depot medical stores	1
Depot medical stores	6
X ray units	4
Mobile X ray units	2
Field laboratories	2
Motor ambulance sections	6
<b>Total</b>	<b>98</b>

\*Sixty five sections for Indian troops and thirty for British troops

The 'Plan of Operations 1938' also involved the provision of 102 medical officers for Royal Artillery regiments and for Indian and British infantry battalions The total requirements of medical officers for peace and war units amounted to 1,005 officers comprising 654 IMS (including 444 Indians) and 351 RAMC officers<sup>2</sup>

The sanctioned and actual strength of medical personnel and the reserves authorised and available at the outbreak of the war were as follows —

Category	Sanctioned	Actuals in military employ	Available for military duty
IMS officers	361	366	366
RAMC officers	268	268	268
IMS officers in civil employ as war reserve	147		133
IMS officers in civil employ, residuary cadre	73		(a)
Supernumerary IMS officers in civil employ	58		(a)
AIRO (M)	300		261
IRRO	29		29
Assistant surgeons IMD	346	346	346
Assistant surgeons IMD in civil employ as war reserve	78		74

<sup>1</sup> F/90/G/H

(a) Not normally recallable to military duty

<sup>2</sup> A/137/H(M) F/7-166/J(H(M)

<i>Category</i>	<i>Sanctioned</i>	<i>Actuals in military employ</i>	<i>Available for military duty</i>
Assistant surgeons IMD—residuary	19	.	19
Sub-assistant surgeons IMD	576	578	578
Sub-assistant surgeons in civil employ as war reserve	48		43
Sub assistant surgeons in civil employ residuary . . . . .	30	.	30
Sub-assistant surgeons military reserve	150		142
Sub-assistant surgeons in civil employ under ten years' service			649
Nurses for British troops QAIMNS	215	215	215
AINSR(BT)	50		
IVAS for British troops	100		
IMNS	55		55
AINSR (IT)	150		.
IVAS for Indian troops	250		
RAMC other ranks	361	361	361
IHC	8,452	8,645	8,645
IHC ambulance section reserve	2,300	.	2,300
IHC nursing section reserve	1,222		1,222
Total	15,641	10,779	15,736

General mobilisation had not been ordered at the outbreak of war, or at any time during its course, and consequently there was some difficulty in calling up the reserves, *e.g.*, the sub-assistant surgeons reserve could only be called up on general mobilisation. The number of volunteers was limited and it was necessary in most cases to issue an Extraordinary Gazette of India notification calling them up.<sup>3</sup> With regard to AIRO(M) only those in Class A(i) could be called up in an emergency. The calling up of those in Class A(ii) and B required special legislation. The civil reserve was also intended to be used on general mobilisation though it was not anticipated that the provincial governments would object to release these officers.<sup>4</sup>

However, the immediate requirements in respect of medical officers could be met from the existing resources mentioned above. With regard to RAMC officers there was little or no recruitment in India and the deficiency was to be met by recalling British officers of the IMS, numbering ninety-seven, from the civil to the military cadre. For future requirements RAMC officers were to be obtained from the War Office in the United Kingdom by the Secretary of State for India and for the most part by recruitment in India.

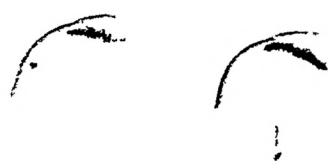
The field of recruitment to the assistant surgeon's branch of the IMD was equally limited and future requirements were to be met by the re-employment of pensioners and by the reversion to military service of those employed by the provincial governments. The

<sup>3</sup> Indian Reserve Forces Rule 5(b)

<sup>4</sup> A/7/34/H(M).

The following field

Unit	Disembarked		
	Location	Place	Date
No 14 Field Ambulance	Aden	Suez	4 October 1939
No 18 Field Ambulance	Aden	Singapore	12 August 1939
No 19 Field Ambulance	Aden	Suez	16 August 1939
No 5 Field Hygiene Section	Aden	Singapore	11 August 1939
No 15 Field Hygiene Section	Aden	Suez	15 August 1939
No 2 Casualty Clearing Station	Aden	Suez	20 October 1939
No 17 Indian Staging Section	Aden	Aden	
No 18 Indian Staging Section	Aden	Suez	4 October 1939
No 19 Indian Staging Section	Aden	Suez	4 October 1939
No 2 Ambulance Train	Aden	Suez	21 October 1939
No 10 IGH	Aden	Suez	4 October 1939
No 11 IGH	Aden	Suez	16 August 1939
No 12 IGH	Aden	Singapore	12 August 1939
No 13 IGH	Aden	Aden	
Section IGH K-6	Aden	Marseilles	27 December 1939
No 3 X ray Unit	Aden	Suez	
No 2 Indian Convalescent Depot	Aden	Suez	21 October 1939
No 4 Depot Medical Store	Aden	Towfik	8 November 1939



sub assistant surgeons' reserve (military) had, however, a large waiting list to meet the requirements under the 'Plan of Operations 1938'

The deficiency in respect of nurses of the QAIMNS for service with British troops was negligible and was expected to be met by employing members of the IVAS. But it was difficult to meet the deficiency in nurses for the Indian troops

There was also a large deficiency in the RAMC other rank cadre which in the ordinary course of events was met by providing trained nursing orderlies from British infantry internal security battalions and from the War Office. Steps were also taken to provide this class of personnel in India by the recruitment of Anglo-Indians as nursing orderlies<sup>5</sup>

The deficiency in IHC personnel was not considered to be serious and no difficulty was anticipated in their recruitment. Certain other personnel, viz, carpenters, tailors, bricklayers tinsmiths, cutlers etc, could also be recruited

The mobilisation of the field army and all covering troops involved the expansion of selected military hospitals in Northern Command and Western (Independent) District. All equipment for this expansion as well as for general requirements was also available. Military Engineering Service equipment was also available with the exception of certain items which were to be provided on mobilisation, namely beds from vacated barracks

The External Defence Troops were despatched overseas either immediately before or soon after the outbreak of the war. The Headquarters of Deccan Force went to Egypt to form the Headquarters 4th Indian Division and a new Headquarters Deccan District was formed in India. The 5th Indian Division was also formed in Deccan District<sup>6</sup>

By the end of 1939, the following medical units were raised and sent overseas as a part of the External Defence Troops

Unit	Raised and mobilised	Despatched with external defence troops					Total
		To Malaya with Force Lanka in August 1939	To Middle East in September 1939	4th Force Infantry Heron Division August to October 1939	To Aden from August to October 1939	To the United Kingdom Force N-6	
Field ambulances	3	1	2				3
Field hygiene sections	2	1	1				2
Casualty clearing station	1			1			1
Staging sections	3			2	1		3
General hospitals (headquarters and four sections each)	4	1	1	1	1		4
General hospital section	1					1	1
Convalescent depot	1			1			1
Ambulance trains	2*			1			2*
Depot medical stores	1			1			1
X-ray unit	1			1			1
<b>TOTAL</b>		19	3	4	2	1	18

\* 161 medical personnel including 127 doctors accompanied the eighteen medical units sent overseas (IMS officers-64, RAMC officers-12, Assistant surgeons-33, Sub-assistant surgeons-77, RAMC the ranks-27, IHC other ranks-1,947)

Personnel only

F/Z-16733/H(M)

C A/7/34/H(M) F/Z 10679/H(M)

During the year 1939, 19 field medical units were raised and mobilised and the expanded establishment of the medical personnel on 31 December 1939, was as follows :—

In India	Officers		Other ranks		Others		Total	
	Authorised	Actual	Authorised	Actual	Authorised	Actual	Authorised	Actual
IMS	295	303					295	303
RAMC	252	232	761	678			1,013	910
ADC	26	26	42	42			68	68
IMS (recalled)	29	99					29	99
AIRO	70	.				.	70	
QAIMNS and QAMNS(I)					215	188	215	188
IMNS					65	64	65	64
Matrons (military families hospitals)					43	35	43	35
IMD								
Assistant surgeons	18	18	314	308			332	326
Sub-assistant surgeons			482	461	12	12	494	473
IHC			4,945	4,579	4,715	4,441	9,660	9,020
Total	690	678	6,544	6,068	5,050	4,740	12,284	11,486
In overseas	79	79	1,169	1,169	832	832	2,080	2,080
Total in India and overseas	769	757	7,713	7,237	5,882	5,572	14,364	13,566

1940

### *The Role of the forces sent to the Middle East*

Originally one brigade had been earmarked for the protection of the Anglo-Iranian Oilfields in Southern Iran, but as danger to Iraq and Iran increased a larger force was contemplated for the Middle East. It was considered necessary that a force up to three divisions in strength should be based on Basra which would operate in conjunction with the air force to the north of Baghdad. All these plans were prepared before the collapse of France. The entry of Italy into the war and the uncertain attitude of both Iraq and Iran changed the situation. These later developments had not been taken into account when the plans were initially formulated. The role for these forces, therefore, was to raise the morale of the Government of Iran, to establish a bridgehead at Basra, to be ready

to protect the Abadan Oil Refinery against sabotage, and to deter hostile elements from interrupting the lines of communication (L of C) overland to Palestine

### *The 1940 Expansion Scheme*

In May 1940, it was decided to undertake a considerable expansion of the Army in India to meet any aggression against its north-western frontiers. This expansion was to be carried out initially from India's own resources aided by such assistance in material as might be available from overseas. Planning for the Middle East also continued, and the plan for *Force Sabine* was prepared in consultation with the War Office and Middle East Command. The units to be provided from India for this force included one force headquarters, one Indian division and complete lines of communication and base units. Thus the '1940 Expansion Scheme' required, in addition to the troops necessary for frontier defence, port defence, internal security and those already earmarked for overseas, the creation of a field army organisation consisting of the following —

#### (i) *A Northern Force*

- (a) One division on the higher scale of mechanisation (6th Division)
- (b) Two divisions on the lower scale of mechanisation (7th and 8th Divisions) for duties on the L of C
- (c) Force troops
- (d) Base and L of C units

#### (ii) *A Southern Force*

- (a) One mobile division (1st Armoured Division)
- (b) One Infantry division on the higher scale of mechanisation (9th Division)
- (c) One infantry brigade on the lower scale of mechanisation (23rd Brigade)
- (d) Force troops
- (e) Base and L of C units

#### (iii) *General Reserve*

- (a) One division on the higher scale of mechanisation (10th Division)
- (b) Force troops
- (c) Base and L of C units

It will be seen that the scheme was designed to produce one armoured division, three infantry divisions on the higher scale of mechanisation and two infantry divisions and one brigade on the lower scale of mechanisation.<sup>7</sup>

The units to form the infantry divisions were drawn from the frontier defence, frontier defence reserve and internal security units, their places being taken by new units. Units of the mobile division (1st Armoured Division) already existed as part of the general reserve

<sup>7</sup> F/Z 21665/H(M) 1/9076/H



The commitment of medical units under this expansion scheme was as follows :—

Units	Divisions									
	9th	1st Armoured	10th	8th	23rd Brigade	6th	7th	Unallotted units	Total	Existing units.
Armoured brigade field ambulances	.	3	.	.	.	.	.	.	3	3
Field ambulances	3		3	3	1	3	3	2	18	3
Field hygiene sections	1	1	1	1	(a)	1	1	6	12	3
									(a)	(a)
Casualty clearing stations	1	1	1	1	..	1	1		6	3
British staging sections	1	1	1	1		1	1		6	4
Indian staging sections	2	2	2	2	.	2	2		12	7
Depot medical stores	1	1	1	1	..		1	.	5	3
Field laboratories	1	.	.	1		.			2	2
Anti-malaria units	1		.	1	.		1	1	4	.
British convalescent depots	1			1			1		3	2
Indian convalescent depots	1			1			1	.	3	2
Mobile X-ray units	1	1	1	1		1	1		6	2
X-ray units	2	2	2	2		2			10	
Total	16	12	12	16	1	11	13	9	90	34
					(a)				(a)	(a)

(a) plus one sub-section.

It is evident from the above that the total commitment was ninety medical units and one sub-section field hygiene section which involved the raising of fifty-six medical units and one sub-section of a field hygiene section. In addition, twelve headquarters, ninety-five Indian and seventeen British sections of general hospitals, at the scale of two headquarters, seventeen Indian and three British sections for each infantry division and two headquarters, ten Indian and two British sections for the armoured division, were to be raised. Also personnel had to be provided for thirteen motor ambulance sections ; two each for the divisions and one unallotted, and force and divisional headquarters and other non-medical units

The dates by which full war establishment for the medical units of the above divisions was to be embodied and ready are given below —

Division	Date full war establishment to be embodied	Date ready
9th	1 December 1940	February 1941
1st Armoured	15 January 1941	March 1941
10th	15 March 1941	May 1941
8th	15 May 1941	July 1941
6th	15 July 1941	
7th	15 September 1941	
23rd Brigade	15 July 1941	
Unallotted units	15 March to 15 October 1941	

No difficulty was anticipated regarding the provision of medical personnel except in the case of RAMC officers and other ranks, who were to come from the United Kingdom or who were to be recruited in India from the Anglo-Indian community, and assistant surgeons, IMD who were to be replaced in the field medical units by RAMC officers, if available.

The supply of equipment was likely to cause some delay in the formation of the units.<sup>8</sup>

The steps taken to meet the growing demand for medical personnel have already been discussed in the previous chapters. In addition, owing to the shortage of RAMC officers instructions were issued to all commands on 19 July 1940, that IMS officers would be employed to fill the vacancies in BMHs and British general hospitals (BGHs), and that maximum use would be made of the assistant surgeons' branch of the IMD. On 26 July 1940, commands were informed that it was the general policy to accept the services of any medical practitioner who volunteered to work in military hospitals in an honorary capacity.

During World War I it was found unsatisfactory to give charge of wards in the hospitals to civil medical practitioners, for the reason that owing to their private practice they were often unable to perform their duties regularly. It was considered, however, that full use should be made of civil medical practitioners to assist in any emergency or help at any operation or where their services were required in a specialist capacity or as consultants. Every opportunity was, therefore, to be offered to them to help in these ways. A review was also made of the possibility of replacing a portion of the male staff in BMHs by the employment of women and, where possible, such replacements were carried out.

On 9 August 1940, in response to a further request for help, India offered four infantry divisions and one armoured division for service overseas during 1941. These divisions were to be taken from the formations being raised under the '1940 Expansion Scheme' and were to be replaced therein by new divisions. The divisions selected were the 6th, 8th, 9th and 10th Infantry Divisions and the 1st Armoured Division. The raising of these divisions was accelerated so that the medical units required had to be raised two months earlier, than was originally planned. The British Government, however, accepted four infantry divisions and in lieu of the armoured division asked for one motor cavalry brigade and one extra infantry division. Based on the above requirements the new '1940 Expansion Programme' was issued in September 1940.

<sup>8</sup> F/Z 21665/H(M)

This programme included the following medical units :—

Field ambulances	...	.	.	21
Field hygiene sections	.			12
Sub-section field hygiene section	.		..	1
Casualty clearing stations				3
Staging sections	.	.	.	12
General hospitals	.			8
Convalescent depots				4
Reserve base depot medical stores				1
Depot medical stores				4
X-ray units	..			2
Mobile X-ray units	.	..		5
Field laboratories		..		2
Anti-malaria units	.		.	4
Total	...	.	...	79

The programme of raising the divisions was as follows .—

9th Infantry Division non-divisional troops	May 1941
10th Infantry Division non-divisional troops	July 1941
8th Infantry Division	} August to December 1941
6th Infantry Division	
Base and L of C units	
3rd Motor Cavalry Brigade	February 1941

When the above programme was completed the following additional units were to be raised for the defence of India :—

- 1st Armoured Division
- 7th Infantry Division
- 23rd Infantry Brigade
- Replacements of the 9th, 10th, 8th and 6th Infantry Divisions
- Base and L of C units.

It soon appeared that the 1st Armoured Division was likely to be raised in March 1941, earlier than demanded by the British Government.<sup>9</sup>

The medical units required to complete the order of battle were to be found as under :—

- (a) '1940 *Expansion*' Order of Battle Divisional medical units of 9th Division (*Capable*), 10th Division (*Sybil*), 8th Division and 6th Division (*Sabine*) and 3rd Motor Brigade (*Assurance*)

A number of non-divisional units including additional hospital beds in India for overseas casualties.

- (b) New units which could not be found from (a) above or be spared from frontier defence in the absence of immediate replacements.
- (c) Units already on order for *Sabine*.
- (d) Units for *Sybil*.

Units in (a) above required replacement while those in (b) were to be raised

<sup>9</sup> F/Z-21665/H(M).

The number of medical units of each category was as follows —<sup>10</sup>

Unit	(a) To be replaced	(b) New units	Total
Field ambulances	12		12
Motor brigade field ambulance	1		1
Field hygiene sections	6		6
Casualty clearing sections	5		5
Staging sections	8		8
General hospitals—			
Headquarters	1		1
Indian sections	50		
British sections	5		
Dental sections	2		
Hospitals in India for overseas casualties—			
Headquarters	2		2
Indian sections	20		
British sections	1		
Convalescent depots	2	3	5
Ambulance trains		3	3
Base depot medical stores		1	1
Depot medical stores	3		3
Hospital ships		7	7
River sick convoy (Inland water transport)		1	1
X-ray units	4		4
Mobile X ray units	3		3
Field laboratories		2	2
Anti malaria units	4		4
<b>Total</b>	<b>51</b>	<b>17</b>	<b>68</b>

By the end of 1940, the military formations that had been raised were as follows —<sup>11</sup>

<i>Formation</i>	<i>Date raised</i>
5th Infantry Division (from Deccan District)	August 1940
1st Armoured Division	1 September 1940
9th Infantry Division	15 September 1940
7th Infantry Division	1 October 1940
8th Infantry Division	15 October 1940

Other re organisations which took place in the military formations were as follows —

- (i) Deccan Force became 4th Infantry Division in February 1940
- (ii) 3rd Cavalry Brigade became 2nd Armoured Brigade in April 1940
- (iii) 1st Cavalry Brigade became 1st Motor Brigade in August 1940 and 1st Armoured Brigade in December 1940

#### THE PERIOD REQUIRED TO ORGANISE AND TRAIN THE FIELD MEDICAL UNITS

The minimum period required by the different types of units to organise and train before being called up to proceed overseas on

<sup>10</sup> F/Z 21630/H(M)

<sup>11</sup> Statistical Review of Personnel Army of India Vol III

active service varied in each case. However, on an average the following periods were generally taken as a guide for planning purposes during 1940 :—<sup>12</sup>

Unit	Collecting period	Training period	Time between the completion of unit to war establishment and its being called upon to move from its mobilisation station
Field ambulance	1 month	2 months	2 weeks
Field hygiene section	1 month	2 months	2 weeks
Casualty clearing station	1 month	2 weeks	2 weeks
Depot medical stores	1 month	2 weeks	2 weeks
Anti-malaria unit	1 month	2 weeks	2 weeks
Staging section	1 month	2 weeks	2 weeks
Convalescent depot	3 weeks	1 week	1 week
Field laboratory	3 weeks	1 week	1 week
X-ray unit	3 weeks	1 week	1 week
Mobile X-ray unit	3 weeks	1 week	1 week
Ambulance trains	3 weeks	1 week	1 week
Expansion of existing hospitals	Assuming trained personnel to be available		1 week
New hospitals			3 weeks

The following medical units were raised, mobilised and sent overseas during 1940.

	Raised and mobilised	Middle East in August to October 1940		Malaya in October 1940		Total Overseas
		Force <i>Niblick</i>	Additional	Force <i>Bunker</i>	Force <i>Ab-normal</i>	
Field ambulances	10	3	1	1	1	6
Motor brigade field ambulance	1					
Field hygiene sections	3	2			1	3
Hospital detachment (Dewas senior)	1					
Casualty clearing stations	2	1		1		2
Staging sections	5	3				3
General hospitals	6	3				3
General hospital sections	4			2		2
Convalescent depots	3					
Hospital ships	2					
Depot medical stores	1	1				1
X-ray units	1	1				1
Mobile X-ray units	1	1				1
Field laboratory	1	1				1
Anti-malaria units	2	2				2
Total	43	18	1	4	2	25

\*Mobilised in 1941.

<sup>12</sup> F/Z-22077/H(M)

During the year 1940, forty-three field medical units were raised forty-two were mobilised and the expanded establishment of the medical services on 31 December 1940, was as follows —

<i>In India</i>	Officers		Other ranks		Others		Total	
	Authori- sed	Actual	Authori- sed	Actual	Authori- sed	Actual	Authori- sed	Actual
IMS	820	709					820	709
RAMC	255	221	1 397	1 044			1,652	1 265
ADC	26	29	39	51			65	80
IMS (recalled) and AIRO	135	135					135	135
QAIMNS and QAMNS(I)					265	213	265	213
IMNS					471	75	471	75
Matrons (military families hospitals)					86	37	86	37
AINSR					200	26	200	26
IVAS					350	5	350	5
IMD								
Assistant surgeons	25	44	241	236			266	280
Sub assistant sur- geons regular			413	413	12	12	425	425
Sub assistant sur- geons reservist recalled			91	61			91	61
Sub-assistant sur- geons emergency			591	412			591	412
IHC			9 370	10 133	6 031	8 844	15 401	18,977
Total (in India)	1 261	1 138	12 142	12,350	7 415	9 212	20 818	22,700
In overseas	217	217	3 801	3 801	2 171	2,171	6 189	6,189
Total	1 478	1,355	15 943	16,151	9 586	11,383	27 007	28,889

Medical personnel accompanying the medical units sent overseas totalled 4,342<sup>13</sup> which included 588 medical officers<sup>14</sup>

In December 1940, medical commitments, immediate and future, were visualised as follows —

*First commitment* Priority was given to the overseas commitment i.e. the raising of the following divisional and non divisional units for the divisions offered to the British Government, which were to be raised in 1941 —

Field ambulances	15
Field hygiene sections	11
Casualty clearing stations	4
Staging sections	23
Medical detachment	1

<sup>13</sup> IMS officers	
RAMC officers	239
Assistant surgeons IMD	2
Sub assistant surgeons IMD	51
Lady nurses for British troops	296
Lady nurses for Indian troops	26
RAMC other ranks	83
IHC other ranks	22
Total	3 623

4 342

<sup>14</sup> F/2 2687/H(M)

value of mobile troops. A force of three motorised infantry battalions played an important part in holding the Libyan-Egyptian frontier for several months against numerically superior Italian forces, and such battalions were known to be doing invaluable work with the armoured division. The north of Palestine was also suitable for the employment of mechanised troops who might also be used for rapid reinforcement of Iraq by the Haifa-Baghdad road. These factors necessitated active planning for the Indian armoured formations.<sup>17</sup>

During this period not only was Afghanistan still threatened but the danger of a conflict with Japan was also in sight. Additional coastal defence measures had to be taken and the eastern frontier protected. India was also growing in importance as a vital centre for the war effort. Troops in the Middle East and the Far East had to rely largely upon her for their maintenance. She was, therefore, obviously a target for attack and her security was of the greatest importance. Shortly after the '1940 Expansion Scheme' was launched, India was asked to send the bulk of the forces of the '1940 Expansion' overseas in 1941. It was obvious that all units which were included in the '1940 Expansion Scheme' if sent overseas must be replaced. The provision of these units, together with the requirements for replacement for a large number of units that had been sent overseas necessitated intensive forward planning. Consequently a new Defence Plan known as the "Expansion Plan for 1941" or "1941 Replacements" was prepared in March 1941.<sup>18</sup>

Under the "1941 Plan" for the defence of India, in addition to the normal garrison, five divisions (7th being included in the '1940 Expansion Scheme') were required as follows:—

- (i) For Northern Command frontier defence and frontier defence reserve—one division (7th) on the lower scale of mechanisation and one division (35th—in replacement of 8th) on the higher scale of mechanisation for mobile operations.
- (ii) For Western (Independent) District frontier defence and frontier defence reserve—one division (31st—in replacement of 9th) on the higher scale of mechanisation for use in a mobile role.
- (iii) For general reserve—two divisions (33rd—in replacement of 6th and 34th in replacement of 10th) on the higher scale.

Another division (32nd) was also required as War Office reserve. The general reserve divisions were required to reinforce the defences in North West and North East India, to defend other areas in India and to reinforce forces already allotted to internal security roles.

Plans were also finalised in March 1941, for the maintenance of such forces as might be despatched to Iraq. The first object was the protection of the Anglo-Iranian oilfields and for that purpose one

<sup>17</sup> F/Z-22363/H(M)

<sup>18</sup> F/7-22519/H(M), F/28/H, F/9116/H

division plus base and L of C units (*Force Sybil*—10th Infantry Division) were to be employed. In the event of commitments in Iraq increasing so as to cover not only protection of the oilfields but also the whole of Iraq, three divisions plus base and L of C troops—(*Force Sabine* including Sybil and 6th and 8th Infantry Divisions—*Force Silas*) were to be employed. Army Headquarters (India) was responsible for the collection and despatch of such units of these forces and reinforcements as were to be provided from India.

The administrative and consultant medical staff for the force was assigned as follows —

DDMS (Brigadier)  
ADH

ADMS  
ADP

DADMS  
SC

ADDS  
CPM

Consultants (malarialogist, physician, surgeon, ophthalmologist, psychologist, dermatologist and consultant in tropical diseases)

*Headquarters L of C Area Sabine*

DDMS  
ADMS  
DADMS  
ADH

*Headquarters L of C Sub area Sabine*

ADMS  
DADH

In April 1941, the German advance in South East Europe, combined with hostile intrigue in Iraq itself, made the despatch of troops there an urgent necessity. On 8 April 1941, the Secretary of State for India enquired what immediate forces could be sent to occupy Basra. India offered and diverted to Basra the nucleus of the 10th Infantry Division (*Force Sybil*) with the 3rd Field Regiment and the 20th Infantry Brigade and some ancillary troops then embarking at Karachi for Malaya. The medical units that were thus rushed to Iraq included two field ambulances, two field hygiene sections, two combined general hospitals, one depot medical stores, one X-ray unit, one anti malaria unit, and one field laboratory.<sup>19</sup>

The role of *Force Sabine* had also been made clear and firm by that time on the basis of the Basra Base Reconnaissance Report, April 1940, and the report of the Cairo Conference, April 1941. The object of the force was the protection of the Anglo Iranian Oil Company's oilfields and the refinery at Abadan, the protection of RAF bases and the air route in Iraq, the control of land communications to Turkey via Mosul, the control of the Kirkuk oilfields and the pipeline towards Haifa, the occupation and protection of aerodromes to the north of Iraq which might be utilised for an attack on the Baku oilfields, the safeguarding of the Turkish right flank in the Caucasus by a force located north of Mosul and the prevention of German advance through Anatolia into Iraq. Since the whole of *Force Sabine* was likely to take some months to reach the Iraq area, the more limited object to be attained by any portion of the force in that

<sup>19</sup> F17 216C /H(M)



area was to be defined at the time of despatch. The total maximum force envisaged in this project was a corps of three infantry divisions plus base and L of C troops. India was responsible for determining the composition of the force and for its provision. It was similarly responsible for supplies and stores. Control was to be exercised by the C-in-C, India, under the War Office and in close collaboration with the C-in-C, Middle East.

During this period portions of *Force Sybil* had been despatched or were to be despatched under the following programme :—

*First Echelon—Converse I*—This consisted of *Force Basin*—one brigade. It had already arrived at its destination by that time. No medical units accompanied this force.

*Second Echelon—Converse II*—This echelon had sailed by that time. Certain medical units accompanied this force.

*Third Echelon—Cling*—This also contained certain medical units and was to be ready to leave mobilisation stations on 26 April 1941.

*Fourth and Fifth Echelons—Coder*—These echelons were to complete *Force Sybil* ex-India with the exception, as far as medical units were concerned, of 'Y' Hospital Detachment. The following medical units were included in *Coder* :—

Field ambulance	.	.	1
Field hygiene section	.	.	1
Casualty clearing station	.	.	1
Staging sections			6
Combined general hospital (headquarters five Indian and one British sections)			1
Combined general hospital (headquarters one Indian and one British sections)			1
Convalescent depots	.	.	3
X-ray unit			1
Mobile X-ray unit			1
Anti-malaria unit			1
Total			17

The time factor was of great importance in completing the medical units for these forces. The extent to which *Force Sabine* could be maintained depended on the dates by which the medical units of *Force Silas* had to be raised. Efforts were then made to raise medical units to complete a group of non-divisional units for one division of *Force Silas* (8th Infantry Division). The balance of *Force Silas* was not likely to be raised until September/October 1941. The raising programme of medical units was revised and was planned to produce medical units much in advance of the target previously fixed. Owing to repeated acceleration of the programme in the past it had been quite impossible to build up a reserve and reinforcements at 4 per cent. per month.

In July 1941, a new order of battle for *Force Sabine* was drawn up to meet the existing situation in Iraq which differed considerably from that envisaged when the original order of battle was initially

drawn up Medical commitments under the new order of battle were as follows —

Unit	Total required	Already sent overseas or raised	To be raised
Light field ambulance	1	1	
Field ambulances	10	6	4
Field hygiene sections	8	3	5
Casualty clearing stations	3	1	2
Staging sections	2½	7	17
General hospitals (combined)	14	5	9
General hospitals (Indian troops)	4	1	3
Section general hospitals	2		2
Hospital detachments	2	1	1
Convalescent depots	9	1	5
Ambulance trains	3		3
Hospital ships	5		5
Base depot medical stores	1		1
Depot medical stores	3	1	2
Dental units (British troops)	2	1	1
Dental mechanic units	2	2	
X ray units	9	2	7
Mobile X ray units	3	1	2
Field laboratories	11	1	10
Anti malaria units	2	2	
Ophthalmological unit	1		1
Surgical unit (ENT)	1		1
Total	120	39	81

With the issue of the altered order of battle the raising programme for medical units was also revised and accelerated

The expansion carried out and planned up to April 1941, was '1941 Expansion', which consisted of the 1st and 2nd Armoured Divisions and the 6th, 7th, 8th, 9th and 10th Infantry Divisions. All these were primarily intended for the defence of India. However, the British Government requested India to send the 6th, 8th, 9th and 10th Infantry Divisions plus certain non divisional units with each overseas. These forces were sent overseas as under —

9th Infantry Division—*Force Capable*—sent to Malaya

10th Infantry Division—*Force Sybil*—For the Middle East

6th and 8th Infantry Division—*Force Silas*—For the Middle East

The British Government had also asked India to raise a new division to be held as War Office reserve. This was to be the 32nd (renumbered 17th) Infantry Division. The forces sent or earmarked for overseas had to be replaced for the defence of India. '1941 Replacement' therefore, consisted of four infantry divisions, the 31st, 33rd, 34th, and 35th, in replacement of the 9th, 6th, 10th and 8th Infantry Divisions respectively.

In April 1941, the C-in-C had provisionally agreed to the following target for the expansion of the Army in India in 1942 :—

- (i) One armoured division, assuming that the 1st Armoured Division might go overseas.
- (ii) Four infantry divisions (36th, 37th, 38th and 39th) on the assumption that 17th, 31st, 32nd, 33rd and 34th might go overseas.

'1942 Expansion' had, therefore, to be considered in two parts :—

- (i) Replacement of '1941 Replacement'; it was visualised that the 1st Armoured Division and the 14th, 18th, 23rd (re-numbered from 31st, 33rd and 35th respectively) and 34th Divisions if sent overseas, would leave India deficient to that extent.

- (ii) 1942 Expansion.

Future commitments amounted to the formation of one armoured division, four infantry divisions and '1942 Expansion' of the Army in India.<sup>20</sup>

The medical units including the '1941 Replacement' and '1942 Expansion' programmes, as finally issued on 30 October 1941, numbered 476, as follows<sup>21</sup> .—

Light field ambulances	...	...	10
Field ambulances	..	...	37
Field hygiene sections	..	...	36
Armoured division field hygiene section	.	..	1
Medical detachment for parachute brigade	..	.	1
Casualty clearing stations	..	..	18
Staging sections	..	...	58
General hospitals (combined)	.	..	18
General hospitals (Indian troops)	..	...	19
Sections general hospitals	.		21(a)
Convalescent depots		...	20
Ambulance trains	..	...	12
Hospital ships	..	..	7
Reserve base depot medical stores	..	.	1
Base depot medical stores			1
Depot medical stores	.	..	10
Dental units	.	.	30
Dental mechanic units	..	..	13
X-ray units	.	.	30
Mobile X-ray units	...	.	18
Field laboratories	.	...	22
Anti-malaria units	.	.	13
Ophthalmological units			20
Surgical units (ENT)	.	.	20
Mobile surgical units	.	..	40
Total	.		476

(a) Includes 6 barge sections.

<sup>20</sup> F/Z-24028/H(M)

<sup>21</sup> F/Z-24653/H(M)

The dates of readiness of these units were estimated to be far behind those of the units of other arms. Actually since the beginning of 1941, the Medical Directorate had been asked to provide one general hospital for Indian troops (five sections), one convalescent depot, two field laboratories and 200 extra hospital beds for the Middle East and 200 extra beds for Aden, in addition to the planned commitments.

This raising programme for the '1941 Replacement' and '1942 Expansion' was offset by the shortage of medical officers. The position was serious. The number of IMS officers provided per divisional group 1:2 for divisional and non divisional medical and non medical units was 122 (106 plus 15 per cent reinforcements). Indian divisions in India and overseas were likely to be twelve by December 1941, and by December 1942 twenty. In addition to the new hospitals provided in India for overseas casualties, most of the older ones had greatly expanded to cope with the vastly increased garrisons. Apart from the Middle East and Iraq, medical personnel from India were employed in Aden, Hong Kong, Burma, Malaya, Seychelles and West Africa, and frequent demands for fresh commitments had to be met as in the case of anchorages IAF and RIN. These were mostly on a small scale but they affected the total number which kept on mounting. If the Iraq/Iran garrison was to be increased in 1942 by seven divisions, as was then planned, provision had to be made for about 10,000 new beds in India to receive the additional casualties. Every effort was made to increase recruitment but the proposed necessary inducements towards this end were not meeting with a favourable response and this fact was a source of considerable uneasiness to the planning authorities.

Throughout 1941 the monthly intake of doctors from all sources had been below the monthly requirements. The programme of raising could just be completed up to 31 December 1941, and that was possible only by the serious depletion of staff in the hospitals in India, which had reached a low level. The position then was that the Medical Directorate had no reserve for reinforcements for overseas units. Personnel could not be available for unforeseen demands occurring so frequently. This involved a slowing down of the raising programme. As a matter of fact it was drastically cut down with the result that the raisings in India were far short of requirements. There were practically no non divisional units in sight for the 19th, 31st, 7th and 20th Indian Divisions. The 14th and 23rd were incomplete and it was barely possible to keep pace with demand for the divisional units. However, there was a change in the war situation, which reduced the number of reinforcements for overseas service, as none were required for Malaya and Hong Kong and the requirements of Burma could be reduced. It was then visualised that, for some time, the field medical units which were to be raised would be mainly for the defence of India within her frontiers. But the equipment position imposed a serious limitation.<sup>22</sup>

<sup>22</sup> A/2/8/H(M)

By the end of 1941, the military formations which had been raised were as follows :—<sup>23</sup>

### *Divisions*

10th Infantry Division	...	15 January 1941
6th Infantry Division . .	.	1 March 1941
11th Infantry Division (raised in Malaya)	... ..	April 1941
14th Infantry Division .	.	1 June 1941
17th Light Division . .	.	1 June 1941
34th Infantry Division	.	1 June 1941
32nd Infantry Division	..	15 September 1941
19th Infantry Division		1 October 1941
23rd Infantry Division	..	1 November 1941

### *Brigades*

4th Armoured Brigade	..	1 April 1941
5th Armoured Brigade	..	15 June 1941
50th Army Tank Brigade (raised in Persia and Iraq Command)		October 1941
50th Parachute Brigade	..	15 October 1941
16th Infantry Brigade (Independent)		25 November 1941
(From 16th Infantry Brigade already formed in August 1940).		

Other re-organisation in the military formations was as follows:—

- 1st Armoured Division became 31st Armoured Division—October 1941.
- 1st Armoured Brigade became 251st Armoured Brigade—10 October 1941.
- 4th Armoured Brigade became 254th Armoured Brigade—October 1941
- 5th Armoured Brigade became 255th Armoured Brigade—October 1941.
- 2nd Armoured Brigade became 252nd Armoured Brigade—December 1941.

The following medical units were raised, mobilised and despatched overseas in 1941 :—

	<i>Raised</i>	<i>Mobilised</i>	<i>Sent overseas</i>
Field ambulances	20	16	18
Light field ambulance . .	1	..	.
Motor brigade field ambulance		1	1
Armoured brigade field ambulances	3	3	1(a)
Field hygiene sections . .	18	13	11
Light field hygiene section .	1	1	..
Armoured division field hygiene section	1	1	..
Detachments field hygiene section	3	3	3
Medical detachment Dewas senior		.	1
Casualty clearing stations	6	4	4
Staging sections	33	23	27
General hospitals	27	22	24
General hospital sections	14	13	11
Convalescent depots	12	10	12
Ambulance trains	3	3	3
Hospital ship .	1	1	..
Base depot medical stores	3	2	1
(a) as light field ambulance.			

<sup>23</sup> Statistical Review of Personnel of Army of India, Vol III.

Depot medical stores	5	5	4
Dental units	9	5	5
Dental mechanic units	3	2	2
X ray units	17	14	12
Mobile X ray units	5	5	3
Field laboratories	18	17	15
Bacteriological laboratory	1	1	1
Anti malaria units	5	4	4
Ophthalmological units	3	3	2
Surgical units (ENT)	2	2	1
Mobile surgical units	3	1	
Total	217	175	166

Thus during the year 1941, 217 field medical units were raised, 175 were mobilised and the strength of the medical personnel on 31 December 1941, was as follows —

In India	Officers		Other ranks		Others		Total	
	Authorised	Actual	Authorised	Actual	Authorised	Actual	Authorised	Actual
IMS	1,855	815					1,855	815
RAMC	256	232	2,852	1,935			3,108	2,167
ADC	65	36	104	63			169	99
IMS (recalled) and AIRO	245	145					245	145
IMS (D)	78	15					78	15
QAIMNS and QAMNS (I)					265	214	265	214
IMNS					410	79	410	79
Matron (military families hospitals)					86	36	86	36
AINSR					200	83	200	83
IVAS					350	82	350	82
IMD								
Assistant Surgeons (BC)	25	66	175	177			200	243
Assistant surgeons (IC) regular			395	277	12	12	407	289
Assistant surgeons (IC) (reservist recalled)			74	24			74	24
Assistant surgeons (IC) emergency			706	442			706	442
CMPs					300	183	300	183
IHG			19,740	17,149	13,264	13,063	33,004	30,212
Total (in India)	2,524	1,309	24,046	20,067	14,887	13,752	41,457	35,128
In overseas	1,006	1,006	15,307	15,307	11,066	11,066	27,379	27,379
Total	3,530	2,315	39,353	35,374	25,953	24,818	68,836	62,507

1942

Ever since the beginning of hostilities sporadic demands on India and the United Kingdom for medical units had been made by Burma but these were unsupported by adequate information. On 5 November 1941, Burma reported that the units there were complete in equipment but were short of personnel by 50 per cent. Subsequently conscription, was adopted. The existing headquarters staff consisted of a DMS, DADH, DADP and SC. The additional staff which was then sanctioned included a DDMS, ADMS, ADH, DADP, DADMS (stores) and two SCs. The medical units at the time included the units of *Force Belief*, *Force Pugnacious*, *Force Billow* and certain non-scheme units.

The following medical units including the Burma Army units were in Burma :—

Field ambulances	..	..	4
Field hygiene sections		.	3
Casualty clearing stations	.		3
Staging sections		.	2
General hospitals—	Headquarters	..	3
	Sections	12	
Ambulance trains			2
Motor ambulance sections			2½
Ambulance transport ship		.	1
Depot medical stores	.	.	1
Total	.	..	21½

On 27 January 1942, the estimated strength of the forces in Burma up to March 1942, was 73,544 Indian and Burmese, 11,709 British and 10,000 African troops. The medical organisation comprised a section hospital placed on the main L of C and certain field medical units to meet the requirements of two small divisions. The percentage of hospital beds available was 7 per cent. for Indians/Burmese, 9 per cent. for the British and 6 per cent. for Africans. Other medical units were to be despatched to Burma in January and February 1942.

Regarding medical stores the plan was to have a transit shed only in Rangoon, a depot medical stores in the neighbourhood of Pegu and two advanced depots to be sited one each in the Meiktila and Maymyo areas. When Dimapur base, which was then being planned, was established it was proposed to locate a depot medical stores there and an advanced depot at Kalewa.

Additional medical staff consisting of one DADH, one DADMS (personnel), one consultant surgeon and one consultant physician was also sanctioned. The post of DADP was upgraded to ADP. The lines of communication staff included one ADMS, three DADsMS one attached to the ADMS and one each for Rangoon and Upper Burma areas.

Field medical units existing in Burma including Burma Army units at that time were as follows.—<sup>24</sup>

Field ambulances	.	..	5
Field hygiene sections		.	3
Detachment field hygiene section*			1
Sub-section field hygiene section	.	.	1
Casualty clearing stations		.	3
Staging sections	.	.	2
General hospitals—	Headquarters		3
	Burmese sections	4	
	Indian sections	12	
Section general hospitals		.	2
Ambulance trains		.	2
Motor ambulance section		.	1
Detachment motor ambulance section		.	1
Ambulance transport		..	1
Depot medical stores	..	..	1
Total	.	...	26

\* (Headquarters and one sub section).

<sup>24</sup> F/6131/H(M)

By September 1942, two (23rd and 25th) of the four (23rd, 25th, 28th and 36th) 1942 programme divisions had been formed. But the 9th and 11th Indian Divisions and two brigades (less about 3200 officers and men) of the 17th Indian Division had been lost in Malaya and Burma. The equivalent of the '1942 Programme' was completed by reconstituting in India the 17th Indian Division and forming the 39th Indian Division, the latter mainly from the units ex Burma of the 1st Burma Division. Thus India formed in 1942, the 23rd, 25th, 26th and 39th Indian Divisions and reconstituted the 17th Indian Division. The 26th Indian Division was formed in place of 28th, and the 17th and 39th Divisions counted against 36th. The armoured formations planned in 1941, viz., two extra armoured divisions and three armoured brigades, had been formed by the end of 1942, but in April 1943, one armoured division was disbanded owing to the shortage of recruits of the right category. Having completed the '1942 Target', India had raised fifteen field army divisions, two armoured divisions and three tank brigades in addition to maintaining her full quota of frontier defence, frontier defence reserve and internal security troops <sup>25</sup>

The medical situation in Assam had been a source of acute anxiety to the DMS for many months. In October 1942, the hospital situation in particular and the supply of medical stores in general had engaged his attention. Transport difficulties and the exceptionally heavy monsoon had been responsible for movement delays, and the lack of senior medical personnel had held up the provision of adequate hospital reinforcements. Many hospitals had to be raised with skeleton staff only, pending the arrival of extra personnel, when they could be completed. Energetic steps were also taken to deliver stores. As for the personnel, no visible signs of improvement in the situation were apparent and until improvements materialised the general medical situation throughout India had perforce to remain critical and disquieting and nothing but unsparing and unremitting devotion to duty on the part of all medical officers and nurses could avert a medical disaster.

The IV corps had been located in Assam and the following medical units were allotted to it —

Field ambulances	6
Field hygiene sections	5
Casualty clearing stations	5
Staging sections	8
Indian general hospitals (headquarters plus one section)	3
Combined general hospital (headquarters, five Indian and one British sections)	1
Combined general hospital (50 beds)	1
*CIMH (50 beds) Kohima	1
*Combined British military hospital (87 beds) Lebung	1
*CMH (120 beds) Panitola	1
*CMH (180 beds) Digboi	1
*IMH (1,200 beds) Shillong	1

<sup>25</sup> F/9076/H



The following medical units including the Burma Army units were in Burma .—

Field ambulances	..	.	..	4
Field hygiene sections	...	.	..	3
Casualty clearing stations	..	..	..	3
Staging sections	...	...	.	2
General hospitals—	Headquarters	..	..	3
	Sections	.	12	
Ambulance trains	..	..	.	2
Motor ambulance sections		..	..	2½
Ambulance transport ship	..	..	..	1
Depot medical stores	..	.	..	1
Total	..	...	..	21½

On 27 January 1942, the estimated strength of the forces in Burma up to March 1942, was 73,544 Indian and Burmese, 11,709 British and 10,000 African troops. The medical organisation comprised a section hospital placed on the main L of C and certain field medical units to meet the requirements of two small divisions. The percentage of hospital beds available was 7 per cent. for Indians/Burmese, 9 per cent. for the British and 6 per cent. for Africans. Other medical units were to be despatched to Burma in January and February 1942.

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Field medical units existing in Burma including Burma Army units at that time were as follows :—<sup>24</sup>

Field ambulances	..	...	..	5
Field hygiene sections	..	..	..	3
Detachment field hygiene section*	..	..	..	1
Sub-section field hygiene section	...	..	..	1
Casualty clearing stations	..	..	...	3
Staging sections	..	..	...	2
General hospitals—	Headquarters	.	.	3
	Burmese sections		4	
	Indian sections		12	
Section general hospitals	...	..	...	2
Ambulance trains	..	...	...	2
Motor ambulance section	..	.	...	1
Detachment motor ambulance section	...	...	...	1
Ambulance transport	...	...	...	1
Depot medical stores	...	..	...	1
Total	...	...	...	26

\* (Headquarters and one sub section).

<sup>24</sup> F, 6131/H(M)

By September 1942, two (23rd and 25th) of the four (23rd, 25th, 28th and 36th) 1942 programme divisions had been formed. But the 9th and 11th Indian Divisions and two brigades (less about 3200 officers and men) of the 17th Indian Division had been lost in Malaya and Burma. The equivalent of the '1942 Programme' was completed by reconstituting in India the 17th Indian Division and forming the 39th Indian Division, the latter mainly from the units ex-Burma of the 1st Burma Division. Thus India formed in 1942, the 23rd, 25th, 26th and 39th Indian Divisions and reconstituted the 17th Indian Division the 26th Indian Division was formed in place of 28th, and the 17th and 39th Divisions counted against 36th. The armoured formations planned in 1941, viz., two extra armoured divisions and three armoured brigades, had been formed by the end of 1942, but in April 1943, one armoured division was disbanded owing to the shortage of recruits of the right category. Having completed the '1942 Target', India had raised fifteen field army divisions, two armoured divisions and three tank brigades in addition to maintaining her full quota of frontier defence, frontier defence reserve and internal security troops<sup>25</sup>

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The IV corps had been located in Assam and the following medical units were allotted to it —

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Casualty clearing stations	5
Staging sections	8
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Combined general hospital (headquarters, five Indian and one British sections)	1
Combined general hospital (50 beds)	1
*CIMH (50 beds) Kohima	1
*Combined British military hospital (87 beds) Leibong	1
*CMH (120 beds) Panitola	1
*CMH (180 beds) Digboi	1
*IMH (1,200 beds) Shillong	1

*BMH (300 beds) Shillong	.	.	.	1
Convalescent depots	.	.	.	3
Depot medical stores	.	.	..	1
Dental units				2
X-ray unit	..	.		1
Mobile X-ray units	.			3
Field laboratories	.	..	.	2
Anti-malaria units		...	.	7
Mobile surgical units	.	..	.	3
Total	.		.	57
†Static units.				

Other units which were earmarked to join the corps by November 1942, were as follows :—<sup>26</sup>

Field ambulances	.	...		3
Field hygiene sections	.	.		3
Bearer companies	.	.	.	2
Casualty clearing stations				2
Staging sections (combined)	.			4
General hospitals— Headquarters				4
Indian sections	25			
British sections	5			
Convalescent depots				2
Base depot medical stores				1
Depot medical stores	.			2
Mobile X-ray units				2
Mobile surgical units				3
Field transfusion units				2
Base transfusion unit			.	1
Total	..	..	.	31

In 1942, during the campaign in Malaya the following medical units were captured by the Japanese intact :—<sup>27</sup>

Field ambulances (Nos. 15, 16, 18, 27, 28, 36, 38, 40 and 43)				9
Field hygiene sections (Nos. 5, 10, 13 and 29)				4
Casualty clearing station (No. 5)	.			1
Staging section (No. 2)	.			1
General hospitals (Nos. 12, 19, 27 and 40)	...			
Headquarters	.	..		4
Indian sections	29			
General hospitals (combined) (Nos. 17 and 20)—				
Headquarters				2
Indian sections	10			
British sections	2			
Section general hospitals ('A' and 'B')				2
Dewas senior medical detachment				1
Convalescent depots (Nos. 1 and 2)				2
Depot medical stores (No. 8)		..		1
X-ray units (Nos. 7, 8 and 22)				3
Bacteriological laboratory (personnel only) (No. 20)	.			1
Anti-malaria units (Nos. 5 and 6)				2
Total	..	.	.	33

<sup>26</sup> F/6291/H(M).

<sup>27</sup> F/9076/H

The state of medical units that served with the Army in Burma consequent on the retreat from there was as follows —

	<i>State of personnel captured</i>	<i>Equipment</i>
13 Light Field Ambulance	Few	None
1 Burma Field Ambulance	Majority	Some
2 Burma Field Ambulance	Few	None
57 Field Ambulance	None	None
39 Field Ambulance	None	None
23 Field Ambulance	Majority	Some
37 Field Ambulance	Majority	Some
50 Field Ambulance	Majority	Some
1 Burma Field Hygiene Section	Few	None
2 Burma Field Hygiene Section	Location unknown	
3 Burma Field Hygiene Section	Majority	None
22 Field Hygiene Section	Majority	None
1 Burma Casualty Clearing Station	Few	None
2 Burma Casualty Clearing Station	Few	None
4 Casualty Clearing Station	Few	None
8 Casualty Clearing Station	Few	None
1 Burma Staging Section	} Location unknown	
2 Burma Staging Section		
2 British Staging Section	Few	None
16 Indian Staging Section	Most	None
31 Indian Staging Section	Some	None
59 Indian General Hospital	Few	None
41 Indian General Hospital	Half	None
60 Indian General Hospital	Few	None
Nos 1 to 8 Burma General Hospitals	Location of Nos 1, 5 and 6 unknown. Some personnel of 2, 3, 7 and 8	
Base Depot Medical Stores	} Few	None
13 Depot Medical Stores		
10 Mobile X ray Unit		
1, 2 and 3 Field Laboratories		
7 Anti Malaria Unit		
2 Ophthalmological Unit		
2 Surgical Unit (ENT)		
Headquarters Burma Detachment RAMC		
Headquarters Burma Hospital Corps		

No information was available concerning the units mentioned below but a good proportion of the personnel had got back

- 'B' Detachment Field Hygiene Section
- 'C' Sub section, Field Hygiene Section
- 'G' Section, Indian General Hospital
- 'Q' Section, Indian General Hospital<sup>29</sup>

The Headquarters Army in Burma and the Headquarters II Burma Corps were closed with effect from 15 June 1942, and the Headquarters 2nd Burma Brigade from 15 July 1942. On 20 June 1942, the 1st Burma Division and the 1st Burma Brigade were redesignated the 39th Indian Division and the 106th Indian Infantry Brigade<sup>28</sup>

<sup>28</sup> F/6-37/H(M)

<sup>29</sup> F/6275/H(M)

Military formations raised in 1942, were as follows :—<sup>30</sup>

20th Infantry Division	..	15 March 1942
26th Infantry Division	.	20 March 1942
39th Infantry Division (formed from 1st Burma Division)		3 June 1942
43rd Armoured Division	.	4 July 1942
25th Infantry Division	.	1 August 1942
2nd Infantry Division (formed in Persia and Iraq Command)		August 1942
36th Infantry Division	..	25 November 1942
12th Infantry Division (formed in Persia and Iraq Command)		December 1942
75th Infantry Brigade (Independent)	..	1 April 1942
10th Motor Brigade	...	2 May 1942
267th Armoured Brigade	.	3 July 1942
26th Infantry Brigade (Independent) (formed from already existing 26th Infantry Brigade)	...	July 1942

Other re-organisation that took place in the military formations during 1942, was as under :—

251st Armoured Brigade became 251st Tank Brigade—10 September 1942  
 254th Armoured Brigade became 254th Tank Brigade—10 September 1942

The following medical units were raised, mobilised and sent overseas in 1942 :—

	<i>Raised</i>	<i>Mobilised</i>	<i>Sent overseas</i>
Field ambulances	.. 30	32	8
Light field ambulances	. 7	7	3
Field ambulances (light division)	.. 1	1	
Medical parachute field company	1		
Field hygiene sections	... 12	14	2
Light field hygiene sections	. 2	1	1
Bearer companies	.. 4	2	
Casualty clearing stations	. 10	10	2
Staging sections	.. 22	32	3
General hospitals	. 27	29	10
Hospital detachments	.. 3	3	3
General hospital sections	.. 4	5	3
Convalescent depots	.. 17	14	2
Ambulance trains	. 22	17	4
Independent ward coaches	. 5	5	.
Hospital river steamers	. 12	12	
Hospital ship	. 1	1	
Base depot medical stores	. 2	3	
Depot medical stores	6	5	2
Dental units	.. 23	27	11
Dental mechanic units	.. 7	6	4
X-ray units	. 10	11	2
Mobile X-ray unit	5	5	
Field laboratories	9	4	1
Anti-malaria units	20	21	10
Ophthalmological units	. 6	6	5
Surgical units (ENT)	. 7	7	5
Mobile surgical units	4	6	3
Base transfusion unit	1	1	1
Venereal diseases centre (war role)	1	1	1
Total	281	288	86

<sup>30</sup> Statistical Review of Personnel, Army of India

During the year 1942, 281 medical units were raised and 288 were mobilised. The strength of the medical services on 31 December 1942, was as given below —

In India	Officers		Other Ranks		Others		Total	
	Authorised	Actual	Authorised	Actual	Authorised	Actual	Authorised	Actual
IMS	1,374	1,626					1,374	1,626
RAMC	1,125	1,007	4,434	4,002			5,559	5,009
ADC	106	87	183	172			289	259
IMS (recalled) and AIRO	245	150					245	150
IMS(D)	103	55					103	55
Nurses (BT)					1,383	483	1,383	483
Nurses (IT)					2,810	1,205	2,810	1,205
Matrons (British family hospitals)					86	36	86	36
CMPs								
Graduates					300	287	300	287
Licentiates					300	140	300	140
IMD								
Assistant surgeons (BC)	24	81	210	130			234	210
Assistant surgeons (IC) regular				312	12	12	12	314
Assistant surgeons (IC) (reservists recalled)				41			1,116	11
Assistant surgeons (IC) (emergency)			1,116	562				562
Compounders				290				290
Laboratory assistants								
Radiographers				4				4
Male nurses (WOs Class II)				1				1
IHC			100	16			100	16
Total (In India)	2,927	3,009	2,414	2,918	22,369	21,901	47,783	47,849
Overseas	1,084	844	31,487	31,517	27,360	24,064	61,774	58,590
Total (In India and Overseas)	4,011	3,853	43,813	43,622	37,631	33,831	84,757	81,366

## 1943

During 1942, India's commitments had considerably increased, for besides the defence of the North West Frontier and the requirements of the Middle East, she had to be prepared to face the Japanese threat on her eastern frontier. The war with Japan became the most important preoccupation and demanded long term planning for which a committee was appointed to ascertain facts relating to the capacity of India and Ceylon to provide, receive, maintain, accommodate, move and train naval, land and air forces necessary for war in the east. This planning was to be done for approximately five additional divisions with their quota of ancillary and administrative units, in addition to the existing forces and administrative installations. It was consequently decided that the long term planning should be on the basis of a full target known as thirty-three division target. An order of battle was drawn up in January 1943. The medical component of it was deficient generally in the holding units, though the position in the field units was satisfactory. In February 1943,

it was also decided to amalgamate the 32nd and 43rd Indian Armoured Divisions to form the 44th Indian Armoured Division. The amalgamation was to be completed by 1 May 1943.<sup>31</sup>

Headquarters Indian Expeditionary Force was formed with effect from 18 March 1943. Medical units allotted to the force were —<sup>32</sup>

Field ambulance	1
Field hygiene section	1
Casualty clearing stations	2
Anti-malaria unit	1

The administrative medical staff for the force was one ADMS and one SC(M).<sup>33</sup> In April 1943, a DADMS was added to the staff. In June 1943, the staff was increased and included DDMS, ADH, two DADsMS, DADM and SC.

In March 1943, a revised target for medical units was drawn up. According to this target the total liability with regard to medical units including 'Long Term Planning' and other requirements in India, the total assets and deficiencies were as follows :—<sup>34</sup>

<i>Unit</i>	<i>Liabilities</i>	<i>Assets</i>	<i>Deficiencies</i>
Field hygiene sections	26	9	17
Casualty clearing stations	17	12	5
Staging sections (combined)	55	40	15
Convalescent depots	48	29	19
Ambulance trains	26	19	7
Hospital river steamers	13	8	5
Hospital ships	8	8	
Reserve depot medical stores	3		3
Transit depot medical stores	5		5
Base depot medical stores	9	4	5
Depot medical stores	14	6	8
Sub-depot medical stores	14		14
Dental units	73	31	42
Dental mechanic units	34	15	19
X-ray units	49	18	31
Mobile X-ray units	17	7	10
Field laboratories	29	14	15
Anti-malaria units	100	25	75
Ophthalmological units	13	4	9
Surgical units (ENT)	15	7	8
Mobile surgical units	17	6	11
Base transfusion units	6	6	
Field transfusion units	15	15	
Maxillo facial units	9	7	2
Neuro-surgical units	8	8	
Total	623	298	325

It is thus seen that the deficiency amounted to 325 medical units.

<sup>31</sup> F/6347/H(M)

<sup>32</sup> F/6357/H(M)

<sup>33</sup> F/2315/H(M)

<sup>34</sup> F/6106/H(M)

Important changes occurred in 1943, in the organisation of commands and in the formation of the forces to fight the Japanese in South East Asia. 'Long Term Planning' target could not, therefore, remain the basis of planning for long. It was revised in August 1943, and the target date for readiness was fixed at 1 October 1944. Meanwhile it was considered necessary that India should maintain two additional divisions and authority was accorded in September 1943, to the planning on the basis of the following twenty-five divisions and 154 RAF squadrons and thirty Fleet Air Arm squadrons, of which twenty divisions had to be provided for by India

<i>Overseas Operations</i>	<i>Divisions</i>
Assault divisions	8 $\frac{2}{3}$
Follow up divisions	2 $\frac{2}{3}$
One tank brigade	$\frac{1}{3}$
Airborne divisions	2
Total	13 $\frac{2}{3}$
<i>Operation in Burma</i>	
Infantry divisions*	5
Long range penetration divisions	2
Total	7
<i>Reserve</i>	
Armoured division	1
Infantry divisions*	2
Equivalent division (parachute brigade, Burma Brigade etc.)	1 $\frac{1}{3}$
Total	4 $\frac{1}{3}$
Grand Total	25

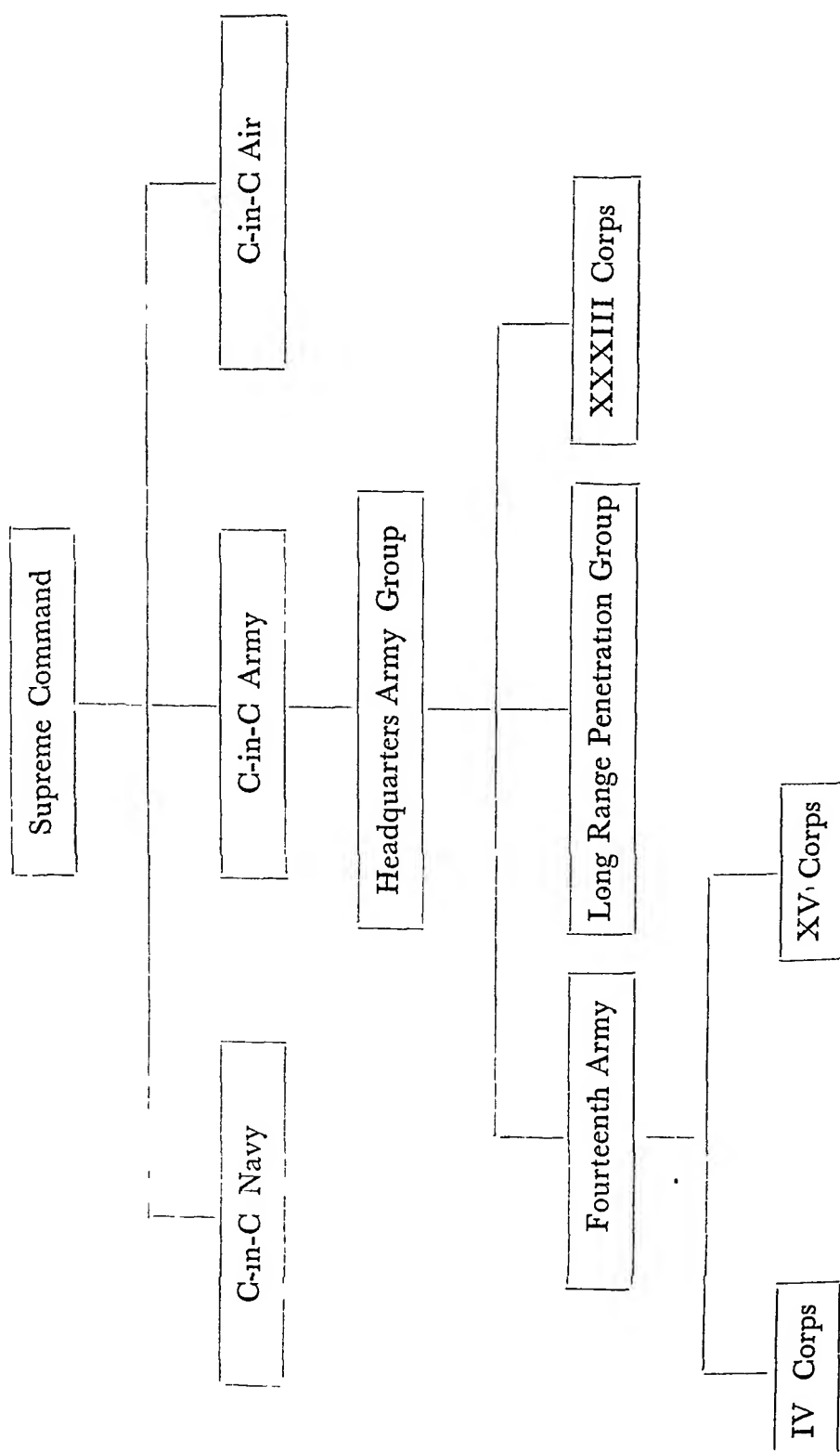
\*These seven divisions would comprise five animal and mechanical transport divisions, one light division and one West African division

Meanwhile sanction was given for the raising of a special force with effect from September 1943. In October 1943, there was reorganisation of command on the eastern frontiers of India. The Eastern Army was split into the Fourteenth Army and the Eastern Command. The Fourteenth Army covered Assam and portion of Bengal.<sup>33</sup>

At the same time the plan was to form a Headquarters Army Group which was to form the land forces component of the South East Asia Command, the proposed lay out of which was as per chart annexed —

<sup>33</sup> F/2379/H(M)





Headquarters Eleventh Army Group was formed with effect from 1 October 1943. The administrative medical staff sanctioned for the group was a DMS (brigadier), ADMS, ADH, ADM, ADDS, DADMS, SC (stores) and SC.

The Supreme Allied Commander assumed command of the Allied Land Forces, South East Asia with effect from midnight on 15/16 November 1943. Consequently the land forces comprising the Fourteenth Army and Ceylon Army Command including anchorages of Addu Atoll, Diego Garcia and Cocos, were transferred to that command.<sup>36</sup>

Medical units under the command of the Fourteenth Army were as under —

Units	IV Corps							XV Corps							Total
	Fourteenth Army troops	IV Corps troops	17th Light Division	20th Infantry Division	23rd Infantry Division	202 L of C Area	Fort Hertz Area	XV Corps troops	5th Infantry Division	7th Infantry Division	26th Infantry Division	334 L of C Area			
Light field ambulances			2											2	
Field ambulances		2		2	3				2	3	3			15	
Burma field ambulances		1												1	
Detachment field ambulance							1							1	
Field hygiene sections		3	1	1	1	5		4	1	1	1	2		20	
Bearer companies			2					2						4	
Casualty clearing stations	1	4				3		1						9	
Staging sections		5				12		4				5		26	
General hospitals	3	4				8		1				8		24	
Convalescent depots	2	4				7								13	
Ambulance trains						2								2	
Ambulance coaches												3		5	
Hospital river steamers	14											3		3	
Base depot medical stores						2						1		3	
Depot medical stores	2					2						2		6	
Sub-depot medical stores												2		2	
Dental units	2					5						2		9	
Dental mechanic units	1					1		1				2		5	
X Ray units	3	1				4						2		10	
Mobile X ray units	3	4				1		3				3		14	
Field laboratories	2	2				7						3		14	
Anti malaria units	2	6				15		2				4		29	
Ophthalmological units		1				1						1		3	
Surgical units (FNT)		1				2						1		4	
Mobile surgical units		3				4		2				1		10	
Field transfusion units		2						2						4	
Army dental centres						1								1	
District laboratory at Shillong						1								1	
Garrison and detention hospitals						4								4	
Sanitary section												1		1	
Maxillo-facial units						1								1	
Total	35	43	5	3	4	88	1	22	3	4	4	46	2	18	

<sup>36</sup> F/6147/II(M) F/63.7/II(M) F/6318/II(M) F/2390/II(M), F/2403/II(M)

Additional units allotted to the Fourteenth Army in November 1943 were:—

Light field ambulance	.	1
Field ambulances	.	2
Field hygiene sections	..	3
Sanitary section	.	1
Casualty clearing station	.	1
General hospitals	..	7
Ambulance train	.	1
Hospital carrier	..	1
Sub-depot medical stores	.	2
Dental units	..	5
Dental mechanic unit	.	1
X-ray units	..	3
Mobile X-ray unit	.	1
Field laboratory	..	1
Anti-malaria units	.	3
Mobile surgical units	..	3
Total		36

General arrangements for the concentration of these troops in the Fourteenth Army had been made and they were to come under the command of the Supreme Allied Commander from the dates they crossed the western boundary of the Fourteenth Army.

There were also certain GHQ troops in the Fourteenth Army area. These were under the command of the Fourteenth Army for local administration only. They were controlled by GHQ as part of the movement and transportation system which it had been agreed would continue to be the responsibility of GHQ. Medical units in this scheme were one field ambulance and one casualty clearing station. In addition there were also the units of the General Reserve Engineering Force, which had been constituted in March 1943, as a GHQ force, with the role of undertaking certain GHQ projects and other major engineering works in the former Eastern Army area. All units in the force were GHQ troops, including those which were then temporarily under the command of the IV Corps whilst working on the Palel-Tamu Road. Certain administrative units had been allotted to the Fourteenth Army for the maintenance of the General Reserve Engineering Force and were to be withdrawn on its general withdrawal. The following medical units accompanied the force:—

Field hygiene section		1
Staging sections	.	14
General hospital (Indian troops)	..	1
Anti-malaria unit	.	1
Total	..	17

The following medical units were in Ceylon —

Field ambulance	1
Field hygiene sections	2
General hospitals (combined)	4
Convalescent depots	2
Ambulance train	1
Base depot medical stores	1
Depot medical stores	1
Dental units	6
Dental mechanic units	5
X ray units	2
Field laboratories	2
Anti malaria units	2
Total	29

Out of these, 4 general hospitals (combined), 3 dental units, 3 dental mechanic units 1 x ray unit and 1 field laboratory were to be withdrawn

*Anchorage*

General hospital (combined)	1
Section general hospital (combined) dieted beds (25)	1
Dental unit	1
Field laboratory	1
Anti malaria unit	1
Total	5

SEAC was also informed that the Special Force comprising six long range penetration brigades then under training in India was assigned to it for operational purposes. The XXXIII Corps (less 19th and 25th Infantry Divisions) was to come under the command of the Supreme Allied Commander, South East Asia, when it left India. The 50th Parachute Brigade and certain other units, which were not required to join the corps in India were earmarked to join it later, if and when required. The medical units involved were the following —

XXXIII Corps  
(Indian formations)

	XXXIII Corps troops	Beach Groups (41 42, 43 44 and 45)	19th Infantry Division	25th Infantry Division	36th Infantry Division	72nd Infantry Brigade	Total
Field ambulances	2		3	3		1	9
Field hygiene sections	1		1	1	1		4
Bearer company	1						1
Casualty clearing stations	3						3
Staging section	1						1
Field hospitals		5					5
Dental units	3						3
Dental mechanic unit	1						1
Mobile X ray unit	1						1
Field laboratory	1						1
Anti malaria units	4						4
Total	18	5	4	4	1	1	33

Units that had been earmarked for the XXXIII Corps and not required to join in India were as follows :—

Casualty clearing stations	...	.	..	2
Malaria forward treatment units		..	.	2
General hospital (combined) Headquarters, seven Indian and three British sections	..	.	.	1
Sub-depot medical store	..	...	.	1
Dental mechanic unit	...	..	..	1
X-ray unit	.	...	...	1
Mobile X-ray unit	.	.	..	1
Field laboratory	..	.	.	1
Ophthalmological unit	..	..	...	1
Surgical unit (ENT)	.	.	...	1
Mobile surgical units	.	..	..	2
Total	..		..	14

Special Force was composed of the 14th, 16th and 23rd British Infantry Brigades, West African troops and the 77th and 111th Indian Infantry Brigades.<sup>37</sup> Medical cover for 111th Indian Infantry Brigade included one dental unit only at that time.

Military formations which were raised in 1943, were as follows :—

3rd Infantry Division (Special Force)	.	.	18 September 1943
303rd Indian Armoured Brigade (formed in Persia and Iraq Command)	..	...	March 1943
43rd Infantry Brigade (Independent) (lorried) (formed in Persia and Iraq Command from 3rd Motor Brigade already existing)	.	.	April 1943
40th Infantry Brigade (Independent) (formed in Persia and Iraq Command from 40th Infantry Brigade already existing)	.	.	May 1943
99th Infantry Brigade (Independent) (formed from 99th Infantry Brigade already existing)	.	.	July 1943
90th Infantry Brigade (Independent) (formed in Persia and Iraq Command from 30th Infantry Brigade already existing)	.	.	August 1943

Other re-organisation that took place in military formations during 1943, was as under .—

32nd Armoured Division became 44th Armoured Division	3 April 1943
43rd Armoured Division was disbanded	30 April 1943
34th Infantry Division disbanded	.. July 1943
14th Infantry Division became training division	July 1943
3rd Motor Brigade became 43rd Infantry Brigade	. March 1943
10th Motor Brigade became 60th Infantry Brigade (Independent)	. July 1943
303rd Armoured Brigade disbanded	.. 15 August 1943
16th Infantry Brigade (Independent) became 116th Infantry Brigade (Independent)	.. December 1943
251st Tank Brigade disbanded	.. 15 December 1943

<sup>37</sup> F/20055/H(M)

Medical units raised, mobilised and sent overseas in 1943 were as follows —

	<i>Raised</i>	<i>Mobilised</i>	<i>Sent overseas</i>
Field ambulances	4	6	
Light field ambulances	2	3	
Field ambulance (parachute)	1	1	
Medical parachute field company		1	
Field hygiene sections	17	20	2
Light field hygiene section		1	
Bearer companies	2	4	
Casualty clearing stations	4	6	
Staging sections	23	20	
Field hospitals	5	5	
Malaria forward treatment units	4	4	
General hospitals	16	19	
Hospital detachments	4	4	1
Convalescent depots	15	20	
Convalescent depots (combined)	2	2	2(a)
Officers convalescent depots	1	1	
Ambulance trains	5	10	1
Headquarters river steamers	1	1	
Hospital carriers	2	1	
Reserve base depot medical stores	1	1	
Transit depot medical stores	3	3	
Base depot medical stores	4	4	1
Depot medical stores	8	9	1
Sub depot medical stores	12	10	
Dental units	25	19	
Dental mechanic units	14	13	4
X ray units	19	21	
Mobile X ray units	10	10	
Field laboratories	16	21	1
Anti malaria units	61	55	
Ophthalmological units	7	7	
Surgical units (ENT)	6	6	
Mobile surgical units	11	11	
Advance base transfusion units	2	2	
Blood storage units	2	2	
Maxillo facial units	2	2	
Venereal diseases centres (war role)	3	3	3*
Reception centres (war role)	4	4	4*
Psychiatric centre (war role)	1	1	1*
Total	319	333	21

\*Raised by Middle East Command

(a) Raised by Persia and Iraq Command

During the year 1943, 319 field medical units were raised and 333 were mobilised and the strength of the medical services on 31 December 1943, was as follows :—

In India	Officers		Other ranks		Others		Total	
	Authori- sed	Actual	Authori- sed	Actual	Authori- sed	Actual	Authori- sed	Actual
IAMC	4,227	2,405	47,609	40,035	46,086	37,221	97,922	79,661
RAMC	.	1,304	6,611	4,912	.	.	6,611	6,216
ADC	.	69	141	133	.	.	141	202
IADC	.	85	.	.	.	.	.	85
Nurses BT	.	.	.	.	2,215	992	2,215	992
Nurses IT	.	.	.	.	4,347	1,812	4,347	1,812
Unspecified	129	236	5,326	4,834	70	5,209	5,525	10,279
Total in India	4,356	4,099	59,687	49,914	52,718	45,234	116,761	99,247
Overseas	818	1,099	9,534	8,983	8,367	7,793	18,719	17,875
Ceylon	129	132	1,467	1,338	1,683	1,547	3,279	3,017
Total	5,303	5,330	70,688	60,235	62,768	54,574	138,759	120,139

#### 1944—August 1945

With effect from 1 February 1944, forward elements of the Special Force were designated the 3rd Indian Division.<sup>38</sup>

By February 1944, the following changes had been made in the staff of the Headquarters Eleventh Army Group.

The DMS was to be a major-general with effect from 15 March 1944, and the following additional appointments were made :—

DDMS (colonel) with effect from 1 March 1944	
ADP in December 1943.	DDDS.
Consultant physician.	DADN.
Consultant surgeon.	DADH.
Consultant malariologist.	DADMS (stores).
Consultant psychiatrist.	CPM
Adviser in venereology.	SM.
Additional ADMS.	VAD Liaison Officer.

The 25th Indian Division, part of the India Command general reserve, was allotted to SACSEA, on 25 March 1944, and in consequence the 19th Indian Division previously assigned was withdrawn.<sup>39</sup>

By February 1944, the Army troops in India had increased to an authorised strength of 2,014,653 (including reinforcements) and an actual strength of 1,969,316. These included GHQ troops, General Reserve Engineering Force, Army troops, IV Corps, XV Corps, XXXIII Corps, Special Force, 2nd British Division, one armoured division (44th), nine infantry divisions (5th, 7th, 17th, 19th, 20th, 23rd, 25th, 26th and 36th), one West African division (81st), one East African division (11th), one special service brigade, (3rd), one tank brigade (50th), seven infantry brigades (14th, 16th, 23rd, 77th, 99th, 111th and 116th), one parachute brigade (50th), one Burma brigade (5th), one West African brigade (3rd), beach

groups, Royal Marines, line of communication troops general reserve, combined training centre, No 3 Reserve Base, No 4 Reserve Base, Ceylon, Ocean Bases, frontier defence, internal security, port defence, training establishments, two infantry divisions (training) (14th and 39th), one infantry brigade (training) (52nd), schools of instruction and general establishments <sup>40</sup>

It became necessary at this stage to assess India's existing, future and long term position as regards assets on which India could count, and liabilities for which she was responsible in respect of all types of units which existed. It was also necessary to make a review of manpower on the basis of the situation disclosed in the assessment, and to make demands on the United Kingdom accordingly. It was therefore, decided in November 1943, to prepare a 'Conspectus' which contained a record of all units, both divisional and non divisional of the India Command, a record of units serving in the SEAC and a record of Indian units, both divisional and non divisional, in other overseas theatres of war. The 'Conspectus' was issued on 1 January 1944. The deficiencies in respect of Indian medical units against outstanding commitments were as follows —

Field hygiene sections (non divisional)		5
Staging sections		4
General hospitals— Headquarters		11
Indian sections	51	
British sections	11	
Convalescent depots		1
Ophthalmological units		11
Surgical units (ENT)		11
Mobile surgical units		6
Total		52

There was a surplus of one bearer company

The commitment for general hospitals could be partly met by anticipated surpluses in certain areas. Deficiencies in general medical units were not very serious. But deficiencies in the specialist units were considerable <sup>41</sup>

Simultaneously with the preparation of the 'Conspectus' it was considered necessary to issue a GHQ Maintenance Project, the object of which was to define the responsibilities of the India Command and the administrative arrangements necessary to maintain the forces of the SEAC, including naval and air forces, and to define the forces, scales of reserves and target strengths to be maintained, the authorities responsible, the action to be taken by them, the source of provision and the channels of demand and supply <sup>42</sup>

As a result of these developments, by March 1944, General Staff planning had become systematic and had its reaction on medical planning also

<sup>40</sup> F/6390/H(M)

<sup>41</sup> F/6339/1/H(M)

<sup>42</sup> F/6202/1/H(M)



In August 1944, the target for 1944/45 comprised the following schedule divisions that were already maintained or were to be maintained by India :—

		Total	Designation	Equivalent divisions
1. (a) <i>Field army formations</i>				
Infantry divisions	.	10	(2nd, 5th, 7th, 17th, 19th, 20th, 23rd, 25th, 26th and 36th) (less one brigade)	9-2/3
Tank brigades	.	3	(50th, 254th and 255th)	1
West African divisions	..	2	(81st (less one brigade) and 82nd)	1-2/3
East African division	...	1	11th	1
Special Force Long Range Penetration brigades	..	6	(14th, 16th, 23rd, 77th, 111th and 3rd West African)	2
44th Airborne Division part found by India	...			1/3
Burma Army				2/3
Independent infantry brigades	3		(116th, 150th, 268th Lorried)	1/3
Infantry brigade	..	1	26th	1/3
Total	..	...	...	17
(b) <i>Non-Field force</i>				
East African brigades	.	2	(22nd and 28th)	2/3
Total	...	...	..	17-2/3
2. <i>Reinforcing formations</i>				
British airborne division	..	1		1
Balance of 44th Airborne Division	..			1/3
One infantry division	..			1
Total	...	...	.	20

An examination of the target was made from the medical point of view in September 1944. It was apparent that the total number of troops for which a medical service was to be provided was considerably higher than that planned in 1943.<sup>43</sup>

In October 1944, this target was increased by a revised directive which gave the following provisional estimates of the forces which might be required to be based on India in 1945.<sup>44</sup>

Divisions	...	.	27 <sup>2</sup> / <sub>3</sub>
RAF squadrons	..	.	118
United States of America Air Force squadrons	..	..	67 plus 600 transport
United States of America Air Force squadrons based on China			91
Fleet Air Arm squadrons (shore based) Naval forces	...		30

<sup>43</sup> A/4/45/H(M)

<sup>44</sup> F/6202/1/H(M).

Thus by January 1945, the forces for which India had to make full provision, were as follows —

	Indian	British	African	Ceylonese or Asian	Civil labour on military work
1 (a) <i>Field forces in India and SEAC</i>					
(i) Army equivalent to eighteen operational divisions	572,000	157,000	99,000		177,500
(ii) RIN	26,800	2,500			
(iii) RAF and RIAF	20,000	108,000			
(b) <i>Non Field forces in India and SEAC</i>					
(i) Army (includes) Ceylon garrison	13,31,600	136,700	10,000	29,300	73,000
(ii) RAF and RIAF	5,000	2,000			
(iii) POW		30,000 (European)		9,000	
Total	1,955,400	436,200	109,000	38,300	250,500
2 <i>Reinforcing troops for which India had to provide constructional requirements of domestic hospital, storage and technical accommodation</i>					
	Indian	British	African	Ceylonese or Asian	Civil labour on military work
Category					
(i) RAF		98,000			
(ii) Army equivalent to 9½ operational divisions	1,20,000	2,27,000			
Total	1,20,000	3,25,000			

In addition to the above, hospital storage accommodation was provided for the American forces numbering 2,04,705 and Chinese forces numbering 89,555 since 1 November 1944

The medical units required for this expansion, in addition to those sanctioned in the 'Conspectus', were as follows —<sup>43</sup>

Field hygiene sections	7
Bearer companies	8
Staging sections (combined)	17
General hospitals— Headquarters	2
Indian sections	4
British sections	14
Total	34

<sup>43</sup> A/4/45/H(M)

Military formations raised in 1944, and up to August 1945, were as follows :—<sup>46</sup>

44th Airborne Division	.	1 April 1944
21st Infantry Division	.	2 April 1944
150th Infantry Brigade (Independent)	..	23 March 1944
155th Infantry Brigade (Independent)	..	10 April 1944

Other re-organisations that took place in 1944, and up to August 1945, were as under :—

44th Armoured Division disbanded	.	31st August 1944
21st Infantry Division disbanded	.	August 1944
36th Infantry Division became 36th British Division	.	September 1944
12th Infantry Division became Headquarters Peisia Iraq area	...	15 October 1944
2nd Infantry Division became Headquarters North Iraq area	.	October 1944
17th Light Division became 17th Infantry Division	.	October 1944
90th Infantry Brigade (Independent) disbanded	.	July 1944
75th Infantry Brigade became Gardaí Brigade	.	August 1944
40th Infantry Brigade (Independent) became Headquarters South Iraq area	.	15 October 1944
26th Infantry Brigade (Independent) became 26th Infantry Brigade	..	January 1945

Medical units that were raised, mobilised and sent overseas in 1944, and up to August 1945, were as follows :—

	<i>Raised</i>	<i>Mobilised</i>	<i>Sent Overseas</i>
Light field ambulances	2	2	
Field ambulances (parachute)	2	2	
Field hygiene sections . .	19	19	
Bearer companies	9	9	.
Casualty clearing station	1	1	..
Staging sections	19	22	.
Beach medical units	3	3	.
Malaria forward treatment units	12	12	.
General hospitals	12	12	1
Hospital detachment	1	1	..
General hospital section	1	1	.
Convalescent depots	3	3	..
Convalescent depots (combined) . .	4	4	4
Officer convalescent depots	3	3	.
Ambulance train	1	1	.
Headquarters ambulance train	1	1	.
Independent ward coaches	10	10	.
Ambulance coach	1	1	.
Hospital ship	1	1	.
Hospital carriers	1	2	..
Ambulance transport	1	1	.
Trooping parties	20	20	.
Reserve base depot medical stores	1	1	..
Base depot medical stores	1	1	.
Depot medical stores	1	1	...

<sup>46</sup> Statistical Review of Personnel, Army of India, Vol. III.

	<i>Raised</i>	<i>Mobilised</i>	<i>Sent Overseas</i>
Sub depot medical stores	2	4	
Dental units	27	33	
Dental mechanic units	5	8	
X-ray units	12	12	1
Mobile X ray units	10	10	
Mobile servicing units	3	3	
Field laboratories	16	17	1
Anti malaria units	34	40	
Ophthalmological units	13	13	
Surgical units (ENT)	11	11	
Mobile surgical units	6	6	
Advanced base transfusion unit	1	1	
Malaria field laboratory	1	1	
Malaria research units (prevention)	2	2	
Malaria research unit (clinical)	1	1	
Base typhus research team	1	1	
Field typhus research team	1	1	
Penicillin research team	1	1	
Anæmia investigation team	1	1	
Parasitological research team	1	1	
Protozoology team	1	1	
Neuropathological research team	1	1	
Sprue investigation team	1	1	
Marasmus investigation team	1	1	
Biochemical research team	1	1	
Total	284	306	7

During the period January 1944 to August 1945, 284 field medical units were raised, 306 were mobilised and the strength of the personnel on 31 December 1944, and 30 September 1945 was as follows —

*Strength on 31 December 1944*

<i>In India and ALFSEA</i>	<i>Officers</i>		<i>Other Ranks</i>		<i>Others</i>		<i>Total</i>	
	<i>Authorised</i>	<i>Actual</i>	<i>Authorised</i>	<i>Actual</i>	<i>Authorised</i>	<i>Actual</i>	<i>Authorised</i>	<i>Actual</i>
IAMC	474	3 599	63 62	57 414	6 910	29 36	126 03	1 373
RAMC	(a)	1 319	(a)	8 334	(a)			10 103
RAMC (non medical)	(a)	51	(a)		(a)			11
ADC	91	96	16	193			233	289
ADDC	119	101					119	101
Army in Burma								
Reserve of officers (medical)		5						5
VIRO(M)		1						1
Indian Territorial Force (medical)		1						1
Nurses (BT)					2 678	2 068	2 678	2 068
Nurses (IT)					4 739	2 068	4 739	2 068
Unspecified	191	333	6 758	3 830			6 919	6 203
Total	5 875	3 759	70 545	72 011	61 357	63 493	140 777	141 263
Overseas	885	1 079	8 012	7 869	7 134	7 376	16 031	16 374
Grand Total	6 760	4 838	78 557	79 880	68 491	70 869	156 808	157 637

(a) Included in IAMC.

*Strength on 30 September 1945*

<i>In India and ALFSEA</i>	Officers		Other Ranks		Others		Total	
	Authori- sed	Actual	Authori- sed	Actual	Authori- sed	Actual	Authori- sed	Actual
IAMC		4,208	63,322	65,365	62,839	63,175	126,161	132,748
RAMC	6,050	1,707	8,738	8,353			14,788	10,060
RAMC (non- medical)		39						39
ADC	98	112	145	171		.	243	283
IADC	121	124					121	124
Nurses (BT)		.			2,768	2,880	2,768	2,282
Nurses (IT)					5,397	1,922	5,397	655
Unspecified	331	416	7,331	6,895	2,802	5,628	10,464	14,804
Total	6,600	6,606	79,536	80,784	73,806	73,605	159,942	160,995
Overseas	832	907	6,859	6,643	6,475	6,195	14,166	13,745
Grand Total	7,432	7,513	86,395	87,427	80,281	79,800	174,108	174,740

After the surrender of Japan on 15 August 1945, the task forces and the medical units that were allotted to these for the re-occupation of the Japanese held territory were as follows. —<sup>47</sup>

	Force for Bangkok and Siam, 7th Infantry Division	Force for Saigon French Indo-China, 20th Infantry Division	Force for Andaman and Nicobar, 116th Infantry Brigade	Force for Hong Kong and China, 2nd Infantry Division, (British) Indian units only	Force for Sumatra, 26th Infantry Division	Total
Field ambulances	3	3	1	1(a)	3	11
Field hygiene sections	2	2	1	2	2	9
Base sanitary sections	1	1		2	1	5
Bearer companies				1(g)		1
Casualty clearing stations	1	1(b)		1	1	4
Malaria forward treatment units	2				1	3
General hospitals	1(d)	1(d)	1(e)	1(e)	2(f)	6
Depot medical stores	1				2(c)	3
Sub-depot medical stores		1	1	1		3
Dental units	2	2	2	2	1	9
Dental mechanic units	1	1	1			3
X-ray unit			1			1
Field laboratories	1	1	1	1	1	5
Anti-malaria units	1	1	1	3	2	8
Ophthalmological units	1	1	1		1	4
Surgical units (ENT)		1			1	2
Mobile surgical units	1	1		1	1	4
Transfusion unit	1					1
Total	19	17	11	16	19	82

(a) One company only.

(b) With X-ray unit.

(c) Detachments

(d) Headquarters, five Indian and two British sections with X-ray unit

(e) Headquarters, three Indian and one British section

(f) One hospital of headquarters, five Indian and two British sections and the other of headquarters, three Indian and one British sections.

(g) One platoon

## NATIONS

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## MANPOWER AND OTHER GENERAL CONSIDERATIONS

The progress in mobilisation of the medical services was conditioned by numerous factors. The difficulties regarding medical stores and equipment have been discussed elsewhere in this volume. The problems of finding adequate accommodation for the expanding Army were also not easy to solve. The vast extent of India, the limited transportation facilities, by themselves, constituted a big problem. Although India is nearly twenty times as large as the United Kingdom, it had about the same mileage of track, about one third the number of locomotives and about one sixth the number of wagons. Roads in India were scarce, undeveloped, often fit only for one way traffic and very few were all weather roads. The country was intersected by many rivers with a limited number of bridges. Many of these rivers, when filled by the annual Himalayan 'snow-melt' and the summer monsoon rains, are miles wide. Their courses change, and in winter they run in smaller channels between banks which are far apart. None of these rivers is navigable for any distance to ocean going ships and in a country as large as Europe there were only seven ports. Because of economic reasons the financial policy of the then Government of India was conservative. The aim was to keep taxation at the lowest possible level, and accordingly plan after plan for development in every sphere of national life had to be pigeonholed for lack of funds. The railway, telephone, telegraph and the road systems in India at the outbreak of the war were adequate for the traffic which they handled in peace, but in no case was there any reserve to serve as a basis for expansion. For the same reason, there were no margins, either of food, housing, storage accommodation, or workshops for use in any emergency. It was against this background that plans were made for the expansion and mobilisation of the Army in India and all these factors influenced medical planning to the same extent as the planning for other arms of service.

Above all, the medical manpower situation remained critical throughout. The extent of the mobilisation can only be fully appreciated if the general background, the paucity of medical personnel and the lack of facilities for the provision of medical equipment are briefly recalled.

Before the war began in September 1939, India was maintaining a small standing Army of about 2,00,000 men of whom about 40,000 were British, with some seven air squadrons and a small Navy. These formations, except one division intended for external defence and actually sent overseas just before the outbreak of the war, were responsible for the internal security of India and her frontier defence. The defence of the North West Frontier always loomed large and the administrative layout of the pre-war Army was concentrated behind the North West Frontier at such places as Lahore, Rawalpindi, Quetta and Karachi. Early in the war the position of Russia was uncertain, and later on it was believed that the Germans advancing through the Caucasus would threaten Persia and Afghanistan. One constant threat to the stability of the Afghan Government



and so to the maintenance of peace in this area was the disorder in the tribal belt lying on each side of the Indo-Afghan border. Such disorder often threatened both Afghanistan and India. Throughout the war the Axis Legations had sought to create disorder embarrassing to the war effort. Therefore, it had been necessary to maintain certain military forces on the North West Frontier in order to maintain control of the tribal area on the Indian side of the border. As a result of the preventive policy adopted the peace of the North West Frontier and the stability of the neighbouring Afghan state had been remarkably maintained throughout the war, and there had been no diversion of military effort from the larger purposes of the war.

As the war in Europe spread to the Middle East, the threat to India from the west remained and the administrative layout in the north west corner of India was expanded to meet it. By the end of 1941, India had two divisions in the Middle East and the best part of two divisions in Malaya. Three and a half divisions had to be sent to Iraq and Persia to defend those countries from the Axis and to secure the lines of communication for aid to Russia. Apart from these divisions India sent out many administrative units ; by the end of 1941, she had overseas the equivalent in numbers of fifteen divisions, a larger force than that sent by any other part of the Commonwealth. The maintenance of these forces and the reception of their casualties were based mainly on the west coast ports of Bombay and Karachi.

At the end of 1941, Japan entered the war and early in 1942 Burma was occupied. India was then faced also with an imminent threat on her eastern land frontier and almost undefended eastern sea coast at a time when the German advance in the west was becoming more and more insistent. Indian troops were fighting the Germans and Italians in the Middle East and the Japanese on the Burma front ; India had clearly for the time being to be satisfied with a defensive role. Her major installations and air fields against the Japanese had, therefore, to be sited well back in the heart of India and the long rail hauls which this involved, over lines of communication poor in capacity and often breached by floods had to be endured. The Japanese naval and air superiority over the Bay of Bengal during 1942, made the east coast ports of Calcutta, Chittagong, Madras and Vizagapatam largely unusable.

By the end of 1942, the Japanese advance on India appeared to have been held and, though the threat had by no means been removed, the C-in-C in India was able to turn his mind from defence to attack and to examine how far India could play her part in receiving, maintaining, training and mounting far larger forces than ever before to fight against Japan. Although planning on a smaller scale had begun early in 1943, it was not until 1 September 1943, that the probable size of the force was intimated to India Command. It had, however, long been clear that the administrative arrangements which had been built up during the three previous phases, namely defence of the north west and west, support of armies in Iraq, Persia and the

Middle East and defence against the threat of Japanese invasion, would help but little and in some cases not at all in the very much bigger task which was then envisaged. No part of the new task was in any way concerned with either frontier defence or internal security, arrangements for both of these having been completed much earlier and requiring no expansion. The troops on frontier defence and internal security including India's reserve division, which were in fact held ready for action anywhere, did not amount to more than 2,00,000 men. The balance of the India Command troops was concentrated mainly on training (more than 500,000) in arsenals and depots (about 300,000) and on the lines of communication (more than 300,000). The majority of these were directly concerned with the SEAC operations.<sup>48</sup> By 1 October 1945, the armed forces of India had thus expanded to 26,44,323<sup>49</sup> which was about eight times the original force maintained by her in 1939.

<i>Date</i>	<i>Total Army in India and Indian Army overseas</i>	<i>Total medical services Army in India and Indian Army overseas</i>	<i>Ratio of medical services to troops</i>
31 December 1939	3,61,325	13,566	1 27
31 December 1940	5,58,046	28,889	1 19
31 December 1941	10,20,392	62,527	1 16
31 December 1942	18,27,417	81,306	1 22
31 December 1943	23,62,156	1,20,139	1 20
31 December 1944	25,60,574	1,57,589	1 16
30 September 1945	26,44,323	1,74,740	1 15

During this period the medical services were responsible for the following tasks —

- (i) The raising, equipping, and training of such medical units as were necessary for the field force
- (ii) The maintenance of a supply of trained personnel as reinforcements for these forces
- (iii) The provision of a full medical service for the Army in India, as well as for the Navy and the Air Force
- (iv) The creation of a provisioning mechanism which would be capable of supplying the needs of the Army in India and the needs of the civil population in countries from which the Japanese were ejected until such time as the civil administration was established
- (v) The reception and treatment in India of casualties from the forces based on India operating in overland or overseas theatres, a task which necessitated the provision of adequate transportation facilities and base hospitals
- (vi) Subsequent disposal of casualties who were unfit for further service to their depots in India or to the United Kingdom, the latter being a task which necessitated an adequate provision of hospital ships

<sup>48</sup> F/6202/1/H(VI)

<sup>49</sup> Statistical Review of Personnel Army of India Vols I III

For the field force from India, medical units were planned and raised on the basis that the average strength of an infantry division, together with its administrative tail, was 33,000 Indian and 7,000 British troops. This figure was taken as a yardstick only for planning purposes.<sup>50</sup>

The following factors considerably affected the extent to which it had been possible to provide officers for the military medical services :—

- (i) There was a serious shortage of medical practitioners, the proportion of doctors to the general population was about 1 : 9,000. There was a self imposed limit to expansion in this category except at the expense of the requirements of the civil population.
- (ii) Indian graduates and licentiates were reluctant to join the IMS and IMD on the terms offered in the early stages of the war.
- (iii) The IMS in peace-time relied on recruitment from the United Kingdom for two-thirds of the officers and with the expansion the British Army in the United Kingdom it was not possible to increase the rate of British recruitment to the IMS sufficiently to meet the expansion of the Indian Army.
- (iv) The loss of 242 IMS officers and 238 IMD assistant surgeons in Malaya deprived India of a large percentage of trained officers for the later expansion programme.

Nearly 33 per cent. of the specialist appointments authorised had of necessity to be filled by officers whose experience was unavoidably limited and whose ability, therefore, fell short of the standard which would otherwise be demanded.

The provision of the requisite number of female nursing officers for the Indian Army was also influenced by the following factors :—

- (1) The marked shortage of trained nurses in India, there being only one nurse to every 60,000 population.
- (ii) The inadequacy of the measures taken to stimulate the intake of civil probationer nurses on the outbreak of the war.

A cadre of uncertified nurses designated as the Auxiliary Nursing Service, India, was started to meet the acute shortage of nurses. A ratio of one trained nursing officer, IMNS, to six uncertificated ANS(I) cadets had been accepted as the limit of 'dilution'.

The supply of British nurses, while on a more satisfactory scale, still fell short of the requirements. Consequently a scheme for the employment of British VAD nurses to make up the general shortage of female nurses was introduced.

An appreciable improvement in the respective ratio of medical officers and nurses to the troops was noticeable from 1942 onwards.

<i>Date</i>	<i>All troops</i>	<i>Medical officers</i>	<i>Nursing services*</i>	<i>Ratio of medical officers to troops</i>	<i>Ratio of nursing services to troops</i>
31 December 1939	361,325	731	287	1 494	1 1259
31 December 1940	558,046	1,326	356	1 421	1 1567
31 December 1941	1,020,392	2,447	494	1 417	1 2066
31 December 1942	1,827,417	4,138	1,724	1 442	1 1060
31 December 1943	2,362,156	4,940	2,804	1 478	1 842
31 December 1944	2,560,574	6,234	4,133	1 411	1 620
30 September 1945	2,644,323	6,822	4,802	1 388	1 551

The number of dental officers throughout remained far below the required number —

<i>Date</i>	<i>Dental officers</i>	<i>Ratio of dental officers to troops</i>
31 December 1939	26	1 13,897
31 December 1940	29	1 19,243
31 December 1941	51	1 20,008
31 December 1942	142	1 12,869
31 December 1943	154	1 15,339
31 December 1944	200	1 12,803
30 September 1945	236	1 11,205

The scale of provision of medical officers for British troops was considerably higher than shown in the above table

After the formation of the IAMC every endeavour was made to improve the status of the male nurses so as to attract a more educated type of recruit. The basic standard of education had been raised for recruits and increased training and grade of pay had been introduced, together with enhanced prospects of promotion to the VCO ranks.

In addition to BORs drafted from the United Kingdom there were Anglo-Indian and Anglo-Burman sections of the RAMC. When the Anglo-Indian section of the RAMC was created in 1939, there was an initial satisfactory recruiting response which reached a peak in 1940, but later there was a steady falling off, and ultimately it was apparent that little assistance could any longer be expected from this category of personnel. The strength of the Anglo-Burman section in India was 183, of whom some 60 were employed in the Burma units, the balance being available for Indian commitments. When the Japanese were expelled from Burma it was anticipated that the Burma Government would wish to have these personnel returned to them.

The difficulties encountered in the expansion of the IHC were mainly of two types—training and deficiencies of personnel. At no time during the course of the war was the available manpower adequate to meet requirements. Nevertheless, by 30 September 1945, the strength of the medical services of the Indian

\* Excludes nursing orderlies

Army was 174,740 and India had mobilised 1,163 medical units out of which 322 were sent overseas.

It is indeed remarkable that despite the almost unsurmountable difficulties imposed by the shortage of medical manpower and material and the lack of adequate executive authority vested in the Medical Directorate in the early stages of the war, the medical services, can claim, as the records show, to have played their not inconsiderable part in the achievement of the ultimate victory.

## CHAPTER XI

# Training<sup>1</sup> IAMC

### BEFORE WORLD WAR II

IMS officers recruited in India were attached to military hospitals in the stations where headquarters IHC companies were located. They received professional training at the hospital and military training at the IHC company. Officers recruited in the United Kingdom attended the junior officers course at the Royal Army Medical College, Millbank. The main professional course of training for all regular IMS officers was the Millbank senior officers course. This course was held twice a year and included instruction for two months in the Royal Army Medical College and three months in civil institutions. Selected officers after qualifying in this course were permitted to study special subjects also at the college and civil hospitals. The specialist courses were usually of four months duration. The hygiene course, however, continued for six months. From 1930 all permanent officers were required to attend the Millbank course before promotion to the rank of major. During their service, officers were eligible for study leave for post-graduate work.<sup>2</sup> In India medical officers were sent to selected civil and military hospitals and institutions<sup>3</sup> for training in medicine, psychiatry, malariaology, laboratory technique, serology, surgery, midwifery and gynaecology, radiology, ophthalmology and diseases of the ear, nose and throat. They could also attend, at their own expense, courses of instruction at the School of Tropical Medicine, Calcutta, and the Institute of Hygiene and Public Health, Calcutta.

The different training courses outside the Army were arranged by the DGIMS and within the Army by the DMS.

Members of the AIRO(M) were required to report for fifteen days training bi-annually at the nearest first or second class IMHs. Reservists who previously held a commission in the IMS did not report for training until two years had elapsed after the relinquishment of the commission.<sup>4</sup>

Members of the IMD(BC), during their five years medical studies as military students were all enrolled in the Auxiliary Force

<sup>1</sup> For training of the IADC and IMNS see pages 58 and 69 respectively.

<sup>2</sup> F/Z 3071/H(M)

<sup>3</sup> The following institutions and hospitals were recognised for training: Bowring and Lady Curzon Hospital, Bangalore; Bai Moti Bai Hospital, Bombay; Carmichael Hospital, Calcutta; Eye Hospital Medical College, Calcutta; Imperial Serologists Department, Calcutta; Irwin Hospital, Delhi; Malaria Institute of India, Delhi; Central Research Institute, Kasauli; King Edward Medical College, Lahore; Lady Willingdon Hospital, Lahore; Hospital for women and children, Lahore; Madras Prince of Wales Hospital, Patna; Lady Reading Hospital, Peshawar; European Mental Hospital, Ranchi; King Edward Medical Hospital, Secunderabad. F/Z 13343/H(M)

<sup>4</sup> RMS (1)

(India) and did their early training in this force. After appointment to the department they were posted to BMHs for further training. IMD sub-assistant surgeons, who were required to be at least LSMF or LMP or the equivalent thereof, on joining the service attended a course of three months training including squad, platoon and company drill and physical training in an Indian infantry unit, and stretcher drill, preparation of forms in connection with IHC personnel and compilation of hospital returns in an IMH.<sup>5</sup> Reservists were called up for training for one month bi-annually.

Members of the IMD (IC and BC) were given the same facilities to attend the School of Tropical Medicine and the Institute of Hygiene as IMS officers. Specialist training in radiology, laboratory technique and serology was also arranged for them.

Pre-war recruit training periods for the IHC were as follows :—

Clerks and store-keepers	6 months
Nursing section	8 months
Ambulance section	6 months
Cooks	41 weeks
Water carriers	5 weeks
Ward servants	17 weeks
Washermen	5 weeks
Sweepers	5 weeks

Training was carried out at the headquarters of the four companies of the corps, located at Quetta, Rawalpindi, Lucknow, and Poona, and in the different hospitals to which they were posted. After the initial training nursing section personnel were instructed, by members of the IMNS, in nursing duties at the IMHs. A certain selected number of ambulance section personnel were also given a six months course of instruction in elementary nursing duties in military hospitals.<sup>6</sup> Refresher courses were also held for them during the course of their service. The ambulance section reservists were called upon for fifteen days training every two years. Reservists of the nursing section were given one month training yearly at the headquarters IHC companies and IMHs.<sup>7</sup>

#### THE TRAINING ORGANISATION AT THE GHQ AND HEADQUARTERS ARMIES AND COMMANDS DURING THE WAR

Shortly after the outbreak of World War II training became the responsibility of the Military Training Directorate.<sup>8</sup> In actual practice the advice and concurrence of the DMS were obtained on all details of training of medical personnel. In May 1941, a medical officer in the rank of major (GSO II, training) was appointed<sup>9</sup> on the staff of the DMT. Gradually as the training requirements increased a similar appointment in the rank of lieutenant-colonel (ADMS training) was also made in the Medical Directorate. The progress of the war

<sup>5</sup> F/Z-23889/H(M)

<sup>6</sup> F/Z-19285/H(M).

<sup>7</sup> F/Z-3071/H(M)

<sup>8</sup> F/0305/54/H(M).

<sup>9</sup> F/Z-24346/H(M)

had increased the demands for varied and higher technical standards. The above arrangements also involved a certain amount of avoidable duplication of work and disagreement in respect of details in the two directorates. It was, therefore, decided that the Medical Directorate should take over the responsibility for all medical training establishments and that the Military Training Directorate would continue to be responsible for the general policy. It was soon found that one officer in the Medical Directorate could not cope with the entire medical training arrangements. Two officers, a DADMS (training) and a SC (training), were, therefore added<sup>10</sup> to the training staff in December 1944. For advice on technical details of specialist training and to ensure a uniform and high standard in each speciality, the training staff depended on the consultants and advisers in the directorate.

As most of the medical training establishments were located in Southern Army, an officer (DADMS training) had already been appointed<sup>11</sup> at its headquarters in May 1944. A DADMS (training) was also appointed in Central Command in April 1945. Although it was considered desirable to authorise similar appointments at the headquarters of other Armies, these could not be sanctioned due to manpower shortage. A directive was, however, issued to Armies and Commands stressing the need for the ADsMS Districts and Areas to give personal attention to the training of all ranks within their areas.

#### THE TRAINING OF IMS AND IMD 1939-42

In order to provide medical officers for the rapidly increasing force, it became necessary to train IMS officers in the shortest time practicable. The initial military training for two weeks (squad and stretcher drill, message writing, map reading, anti-gas etc.) of emergency commissioned officers, in the beginning, was, therefore, arranged in the existing companies of the IHC. Young officers, suitable for field units and specialist appointments, were also selected during this period.

The training of the members of the IMD(BG) continued to be as before. IMD(IC) recruits, however, received one month training at the IHC battalion on joining, after which they were posted to 1st or 2nd class IMHs for further instruction.

After undergoing the initial military training medical officers and assistant surgeons were posted for two months to various hospitals. Selected officers from the hospitals were attached to training field ambulances for another two months. Others waited their turn or were detailed to join various field medical units and training establishments. This scheme imparted the very minimum of training required to meet the immediate requirements.

<sup>10</sup> F/3603/15/H(M)

<sup>11</sup> F/0901/17/H(M)



## THE OFFICERS TRAINING SCHOOL, MHOW

In February 1941, it was decided to send junior medical officers to the Officers Training School, Mhow.<sup>12</sup> A separate medical wing was formed for them at the school in April 1941. The object was to train officers for field units and to give them the necessary knowledge of military organisation. An IMS officer was posted to the school as instructor early in March 1941, and the first course of two months duration for fifty medical officers was commenced on 2 April 1941.<sup>13</sup> The syllabus included physical training, foot drill, elementary weapon training, instruction in camouflage, field engineering, map reading and the use of compass, anti-aircraft training, defence against gas, instructions in discipline, law, organisation of the Army and medical services and tactics. In June 1940, the number of medical officers attending each course had increased from 50 to 100. In August 1941, ten vacancies were also allotted to RAMC, emergency commissioned officers. In October 1941, it was also arranged to train 25 assistant surgeons IMD(IC), thus bringing the total number of trainees to 125.

The staff of the medical wing was as follows :—

Major or captain (medical instructor class B)	.	1
Captains or subalterns (instructor class C)	..	4
VCO Jemadar	...	1
WO II	...	1
Clerks [NCs(E)]	..	2
Company storemen (ex-serviceman re-engaged)	...	1
Sweepers	...	4
Bhistis	.	2
Total	..	16

At this stage newly commissioned medical officers were first required to spend a fortnight with an IHC company. They were then sent to the Officers Training School, Mhow, for further training. A few selected officers were sent direct from this school to the Tactical School, Poona, the rest were posted to hospitals or field units for duty and further training.

It was suggested in December 1941, that the training programme at the school should include subjects like elementary surgery, diseases of the war, hygiene, work in regimental aid post (RAP) and field ambulance, transportation of casualties and elementary driving and maintenance of mechanical transport. The DMS did not consider it advisable to incorporate professional training in subjects like surgery and medicine, but agreed to training in other technical subjects. In all seven courses were held at the school, the last course commencing in April 1942.

## THE TACTICAL SCHOOL

The Tactical Training School was started in Poona early in 1941, by the amalgamation of the Senior Officers School, Belgaum and the Junior Commanders School, Poona. It was divided into

<sup>12</sup> F/Z-23639/H(M)

<sup>13</sup> F/Z-23464/(M), F/Z-23639/H(M).

senior and junior wings. In May 1941, a medical wing was also added to the school. Selected officers with at least six months service were required to undergo a six weeks course at the Tactical School. Suitable senior captains or junior majors of the IMS and the RAMC were also detailed for a three months course at the senior wing of the Tactical school. The object was to train medical officers in the tactical handling of medical units in the field including combined operations, unit training, training of junior officers, peace and war administration, use of equipment, internal security and liaison in the field. The staff of the medical wing consisted of a medical instructor class B (major) and a combatant instructor class C (captain).

The first course for medical officers in the senior and medical wings was started on 19 May 1941. Twenty-two vacancies were allotted for the medical officers, two in the senior wing and twenty in the medical wing. From September 1942, the medical wing course was split in two parts, a three weeks course for ten senior officers and a six weeks course for ten junior officers. The staff of the medical wing was also increased by two additional class C instructors. The officers attending the senior wing course were also required to attend a short course of six days at the Camouflage School.

The Tactical School was moved to Dehra Dun in April 1944, and was renamed Tactical Training Centre. The medical wing was abolished shortly after the reorganisation of the Centre in Dehra Dun. Despite strong recommendations of the Medical Training Conference the medical wing was not re-established.<sup>14</sup>

#### THE FIELD AMBULANCE TRAINING CENTRE

In the early stages field ambulances were embodied as complete units for individual and collective training exercises. The commanding officer of the unit, along with a junior officer and an assistant surgeon was specially selected and remained with the unit throughout the training period, which was from three to four weeks in camp. A proportion of officers and other ranks and reservists was also required to undergo training in the permanent camps established by the instructional staff.<sup>15</sup>

The training included the following subjects —

Knowledge and handling of unit equipment, scales, loading tables, (all pack, pack and mechanical transport, and all mechanical transport), care and maintenance of transport, collection of casualties, camp and march discipline, physical fitness of personnel, intercommunication, chemical warfare, protection against air attack, camouflage and concealment, co operation with troops of other arms and services.

The DMS stressed the necessity of training field medical units with troops of other arms. But it was not normally possible to arrange such exercises. The officer commanding the training unit, therefore, arranged demonstrations to explain what would be expected of the field ambulance personnel in the field.<sup>16</sup>

<sup>14</sup> F/Z-3555/H(M)

<sup>15</sup> F/6104/H(M)

<sup>16</sup> 1/2576/H

In November 1940, five training field ambulances were formed. In order to minimise transfers one was allotted to each Command and Western (Independent) District and were located at Rawalpindi, Sialkot, Lucknow, Poona and Quetta. The period of training of each field ambulance was fixed at two months and was divided into three phases *viz.*, individual training for three weeks, company training for two weeks and unit training for three weeks. The full war establishment was embodied for each unit under training and on completion of training, personnel were transferred to the newly raised field ambulances. To ensure continuity a small permanent training staff including one medical officer (captain), one sub-assistant surgeon, one jemadar IHC and three NCOs (clerical, store and ambulance sections) was sanctioned for each training field ambulance.<sup>17</sup>

The officer appointed to command a field ambulance was attached to the training unit two months before the date on which the field ambulance training. He thus remained with the training unit for four months.

In August 1941, the Military Training Directorate and the Medical Directorate discussed the feasibility of centralising field ambulance training.<sup>18</sup> As a result of these discussions it was considered that improved and more uniform and economical training would result by a re-organisation of the four training field ambulances into two centres, at Poona and Secunderabad in Southern Command, where adequate training throughout the hot weather was possible. Each centre would train three field ambulances for a period of three months instead of two months. On 3 December 1941, sanction was given for closing the training field ambulances, except the light training field ambulance at Sialkot, and for the formation of two field ambulance training centres with effect from 1 January 1942.

The training staff authorised at each of the two training centres was as follows :—

Officer commanding (lieut.-colonel)	.		1
<i>VCOs</i>			
Jemadar, IMD	.		1
Jemadar, RIASC			1
Jemadar, Education	..	.	1
<i>Havildars IHC</i>			
Stores section	.	.	1
Ambulance section	.	.	1
<i>Naiks IHC</i>			
Ambulance section	.	..	1
Clerical section		.	1
Naik, RIASC		.	1
Drivers, RIASC	.	.	8
Orderlies, locally employed		..	2
Sweepers, locally employed		.	2
Total			<hr/> 21

<sup>17</sup> I/6104/H(M), H/2/57/H(M)

<sup>18</sup> F/Z-2521/H(M).

In order to provide first line attached transport required for training, 1 field ambulance troops class II (less camel section), including thirty-two IORs and four NCs(E), was also attached to each of the training centres from 5 June 1942<sup>19</sup>

Field ambulances were required to complete rising before joining the training centres. Their commanding officers continued to be responsible for all administrative arrangements of their units during the period of training.

#### THE TRAINING FIELD HYGIENE SECTION

In the beginning, personnel of other arms of the service were also employed in the field hygiene section. They were replaced by IHC personnel in November 1940. In December 1940, 1 Training Field Hygiene Section was, therefore, established in Rawalpindi. Each field hygiene section under training consisted of the personnel of field hygiene section, including first reinforcements and two additional sweepers and a labourer. The period of training was fixed at six weeks. The permanent staff of the Training Field Hygiene Section was as follows —<sup>20</sup>

Medical officer	1
Sergeant, RAMC	1
Havildar or naik IHC ambulance section	1
Naik IHC clerical section	1
Naik IHC stores section	1
Sweepers	2
Labourers	2
Total	9

In October 1941, the medical officer was authorised the rank of major or captain and was required to be a specialist in hygiene. A jemadar IMD and naik (MT) RIASC were also added to the training staff on 20 February 1942.<sup>21</sup>

#### PARACHUTE BRIGADE

Medical officers of the parachute brigade were trained in the duties peculiar to para-troops operations at the headquarters of the brigade concerned.<sup>22</sup>

#### THE VCOS AND NCOS TRAINING SCHOOL, IHC

The formation of the VCOs and NCOs School, IHC, in Pooni was sanctioned with effect from 15 December 1941, as it was considered that they should undergo thorough training in duties pertaining to field medical units, which could not be given adequately in a basic training centre. The large number of VCOs and NCOs required for the following two years justified the establishment of a

<sup>19</sup> F/Z 24902/H(M)

<sup>21</sup> F/Z 24847/H(M)

<sup>20</sup> F/Z 22,20/H(M), F/Z 22109/H(M)

<sup>22</sup> K/1/8/H(M)

separate school for them. The following staff was authorised for the school.<sup>23</sup>

Commandant (lieut.-colonel or major)	.	...	1
Instructor (captain)	..	'	1
Adjutant and quartermaster (captain)	.	.	1
VCO/IMD	..	.	1
VCOs/IHC	..	..	6
NCOs <sup>24</sup>	..	.	21
Ex-servicemen re-engaged			30
NCs (E) clerks IHC	.	.	4
Temporary personnel <sup>25</sup>	.		28
Total	..	.	93

The school had two wings—senior and junior. The senior wing course of six weeks for fifty students at a time, was for VCOs, senior NCOs and outstanding junior NCOs or sepoys recommended for specially accelerated promotion. The junior wing course, of four weeks, was for 150 junior NCOs and sepoys recommended for promotion. The first course at the school commenced on 12 January 1942.

The establishment of the school was revised on 24 October 1942. The commandant was authorised the rank of major, instead of lieut.-colonel/major. The establishment of NCOs was increased from twenty-two to twenty-six, of ex-servicemen re-engaged from thirty to thirty-four and of NCs(E) from four to twenty-three. No temporary personnel were then authorised on the establishment of the school. The overall strength of the unit thus remained unchanged.<sup>26</sup>

#### THE ARMY MEDICAL TRAINING CENTRE

In January 1942, a representative training conference was held at the Headquarters Southern Command, Poona.<sup>27</sup> It was obvious by that time that the medical training units were scattered in too many different places and that the medical wing at the Officers Training School, Mhow, did not meet the requirements of the medical services. The conference strongly recommended the formation of an Army medical training centre. It was proposed to co-ordinate and centralise training by bringing together the following different Schools and centres as wings of a single medical training centre :—

- (i) Field ambulance training centres including light field ambulance training centre.
- (ii) Training field hygiene section.
- (iii) Medical Wing, Officer's Training School, Mhow.
- (iv) Professional training in conjunction with war hospitals.
- (v) Medical aspect of chemical warfare and passive air defence
- (vi) IHC, VCOs and NCOs school.
- (vii) RAMC Depot Training Wing, Deolali.
- (viii) Any other medical training units which might be found necessary.

<sup>23</sup> F/Z-26334/H(M)

<sup>24</sup> One havildar-major IHC was added to the establishment on 29 May, 1942.

<sup>25</sup> These were replaced by NCs(E) on 7 May, 1942

<sup>26</sup> L/5/7/H(M)      <sup>27</sup> K/1/8 H(M)

Subsequently, in October 1942, a similar conference held at the Medical Directorate suggested the moving of the medical wing of the Officers Training School, Mhow, to Ganeshkhund, Poon, to start the centre <sup>28</sup>

The proposal to incorporate the RAMC Depot Training Wing in the proposed centre was abandoned. A chemical warfare and passive air defence school exclusively for medical officers was not considered necessary as vacancies for medical officers existed in the Chemical Warfare School, Pichmarhi. It was considered that the purely medical aspect of the chemical warfare could be taught during the course of professional training.

Sanction<sup>29</sup> for the formation of the Army medical training centre was given on 8 December 1942. The medical wing of the Officers' Training School, Mhow was transferred to this centre with effect from 22 December 1942. Nos 1 and 2 Field Ambulance Training Centres at Poon and Secunderabad and Light Field Ambulance Training Centre, Sialkot, and IHC VCOs and NCOs School were incorporated in the AMTC with effect from 4 January 1943. The Army School of Hygiene which was formed at Bikaner on 24 February 1943, was also made a part of the AMTC <sup>30</sup>

The authorised staff for the AMTC included the following —

*Headquarters*

Commandant (colonel)	1
Assistant commandant (lieut colonel)	1
Administrative officer	1
Adjutant and quartermaster	1
Conductor IACC head clerk	1
Jemadar IMD (IC)	1

*Havildars IHC*

Clerical section, grade I	1
Store section, grade I	1
Clerks IACC (Indian Wing)	4
Storeman (ex service man re engaged)	1
Civilian clerk	1
Peons	3
Water carrier	1
Sweepers	2

Total	20
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*Army School of Hygiene*

Commandant (lieut colonel)	1
Major (second in command)	1
Majors or captains*	4
WO and sergeants RAMC	3

*VCOs*

Subedar IMD(IC)	1
Jemadar IMD(IC)	1

<sup>28</sup> H/3/2 H(M)

<sup>29</sup> F/2238/H(M) F/3601/127/H(M)

<sup>30</sup> It became independent for a few years on the reorganisation of the centre in May 1943 but again became a wing of the AMTC in 1946

\*Officer commanding field hygiene training unit and 3 instructors

*Havildars IHC*

Clerical section, grade I	..			1
Clerical section, grade II	.	..	.	1
Clerical section, grade III	.		.	3
Stores section, grade II	.			1
Ambulance section	.	..		1
Naik (MT) RIASC	..			1
Ex-servicemen re-engaged	.			5
Draughtsman attached Indian engineers	.		.	1
NCs(E)	..	..	..	27
Total	....	...	..	52

*IHC, VCOs and NCOs School*

Commandant (major)	..		.	1
Captain (chief instructor)	.		.	1
Adjutant and quartermaster	..		..	1

*VCOs*

Jemadar IMD (IC)	..			1
Subedar major IHC	.		...	1
Subedars IHC			.	2
Jemadars IHC			..	3
NCOs and men	.		.	26
Ex-servicemen re-engaged		..	.	34
NCs(E)	.	..		23
Total	...	..	...	93

*Field Ambulance Training Centre*

Lieutenant-colonel	..		..	1
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*VCOs*

Jemadar IMD(IC)	.	.		1
Jemadar IHC education	.	.	.	1
Jemadar RIASC	..	.	..	1

*Havildars IHC*

Clerical section, grade II	..		..	1
Stores section, grade I	.			1
Ambulance section	.	..	..	1
Naik, ambulance section		..		1
Naik RIASC	..			1
Drivers RIASC	.	..	.	8
Orderlies	..		.	2
Sweepers	.	.	.	2
Total	..	...	...	21

*Light Field Ambulance Training Centre*

Captain	.	..	..	1
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*VCOs*

Jemadar IMD(IC)		...	.	1
Jemadar IHC	.	.	.	1

*Havildars IHC*

Clerical section, grade II	..	..	...	1
Stores section, grade I	..	...	.	1
Ambulance section	..	..	...	1
Total	..	..	.	6

The course for officers lasted three months, the first of which was devoted to military training including Army organisation, administration, military law, hygiene, field craft, map reading and customs of the service, the second to lectures and clinical instructions in medicine and surgery, and the third to lectures on special subjects relating to the practice of medicine and surgery in the field and to duties in military hospitals and units. Lectures and clinical teaching were given by the consultants of Southern Army and by the specialists of the hospitals in the Poona-Kirkee area. The officer wing was originally designed for training 150 officers at a time. The first course was attended by 102 officers including forty-four of the RAMC and two of the Chinese Army Medical Service.<sup>31</sup>

The military training syllabus for the VCOs and NCOs school included physical training, drill without arms, noise training, map reading, military law, gas training, tent pitching, field craft, tactics, organisation and administration and instructional methods. Technical instruction in first aid, hygiene and stretcher drill was also given.

After the formation of the IAMC in April 1943, it became necessary to re-organise the AMTC. The intake of trainees was raised from 150 to 450. The establishment was revised to allow for the increased intake. The courses of training were also revised to bring the standards of the corps to the same level of efficiency as the graduates. Consequent upon this re-organisation the Field Ambulance Training Centre at Secunderabad was closed, and the Light Field Ambulance Training Centre, Sialkot and the Army School of Hygiene, Babina, became separate units.<sup>32</sup>

The number of professional and military instructors was increased in order to teach simultaneously three companies, each of 150 officers. Two of the companies did professional and one military training in rotation.

The revised establishment of the AMTC was as follows —<sup>33</sup>

*Headquarters and Officers' Training School*

Commandant (colonel)	1
Assistant commandant (lieut. colonel)	1
Administrative officer (major)	1
Adjutant and quartermaster	1
Instructors class B (majors)	3
Instructors class C (captains or lieutenants)	13
WOs	4

*VCOs IAMC*

Subedar	1
Jemadars	3

*Havildars IAMC*

Clerical section, grade I	5
Clerical section, grade II	6
Clerical section, grade III	5
Ambulance section	3

<sup>31</sup> H/6/32/H(M)

<sup>32</sup> F/3601/127/H(M)

<sup>33</sup> F/2238/H(M) A/6/40/H(M)



### THE TRAINING OF MEDICAL OFFICERS AFTER THE FORMATION OF THE AMTC

After the formation of the AMTC the military training of officers newly commissioned from civil life into the IAMC was carried out in three stages, at the IAMC training and depot centres, at the AMTC, Poona and with the medical units and training divisions. The objects to be attained in the first stage were to equip and to introduce the young medical officer to Army life and organisation. Subjects taught during this period included physical training, drill without arms, gas training, hygiene and sanitation, first aid, tent pitching, map reading and message writing. Subjects like the organisation of the medical services, stretcher drill, the method of conducting regimental aid posts, the regimental medical officer's routine duties, field ambulance duties and tactics were also taught at the training and depot centres.<sup>40</sup> At the AMTC in the first two months technical training was given, which included lectures in war medicine and surgery, clinical instruction in hospitals, instruction in hygiene and sanitation, and clinical instruction in special subjects. Officers were also attached to the wards of hospitals. This was followed by one month basic military training designed to lay the foundation for the production of a self reliant medical officer with a military bearing, capable of leading men and commanding a section or company of a medical unit. This training covered physical training, drill without arms, route marches, battle inoculation, noise training, weapon training (revolver, grenades), safety precautions, military law, map reading and message writing.

Thereafter officers received five weeks post basic military training in the medical units of the 39th and 14th Indian Divisions before proceeding as reinforcements to the field area. This training was designed to give the officer experience under conditions approximating to field service. Additional subjects were added during this period of training such as weapon training with the sten gun, jungle craft, riding and animal management, watermanship, river crossing and swimming. Technical training at the training divisions was in two parts. The officers were first attached as regimental medical officers to units in the training divisions, where they learnt the details of conducting regimental aid posts, regimental medical officer's routine duties, liaison with unit headquarters and the medical units, and the method of training of regimental medical personnel. During the second stage they were attached to Nos. 39 and 41 Field Ambulances where they learnt about company organisation, equipment and establishment and the duties<sup>41</sup> of a company officer of a field ambulance.<sup>42</sup>

<sup>40</sup> F/8819/3/H(M)

<sup>41</sup> Great stress was laid on the principles relating to establishment, role, location, layout, organisation, administration and protection of a main dressing station and an advanced dressing station, evacuation and reception of casualties, triage, bearer relay posts, car posts, equipment, distribution of loads, loading of a company, improvisation, shelters and stretcher and field ambulance tactics

<sup>42</sup> F/8819/3/H(M)

Courses, were also held in the School of Tropical Medicine, Calcutta, for officers who had no experience of tropical diseases <sup>43</sup> Each course was for fourteen days for thirty officers. Specialist courses were conducted in various institutions, laboratories and hospitals under the guidance of recognised specialists and advisers <sup>44</sup>

Vacancies were allotted to medical officers, selected by the Medical Directorate on both the senior and junior staff courses at the Staff College Quetta <sup>45</sup> Suitable medical officers were also trained for two months at the Headquarters of Southern Army, Nos 105 and 108 L of C Areas, the 44th Airborne Division and Rawalpindi, Peshawar and Sind Districts <sup>46</sup> Officers posted to the training and depot centres were given instruction at Kakul in the organisation of basic military training and "instructional technique in the training centres. On their return from the course they were required to conduct similar courses within their units <sup>47</sup>

In order to improve hospital documentation, courses for registrars of hospitals were started in June 1945, in each Army/Command <sup>48</sup> Advantage was also taken to detail medical officers for courses run by other arms of service e.g., medical officers were detailed to attend the Air Supply and Transportation Staff Course and the Officers Air Despatch Course at the Training Depot RIASC (Air Despatch) Chaklala in June 1945 <sup>49</sup>

#### THE TRAINING IHC/IAMC RECRUITS<sup>50</sup>

On the outbreak of war the training periods for IHC recruits were as follows —

Clerks and store-keepers	1 month
Nursing section	4 months
Ambulance section	3 months
General section NCs(E)	1 month

These periods were subsequently amended as follows —

Clerks and store keepers	3½ months
Nursing section	5 months
Ambulance section	4 months
General section NCs(E)	2 months
Cooks	3½ months
Ward servants	3½ months

The training of IHC recruits continued at their company headquarters, later called training and depot centres. Early in 1941, due to the urgent need for accelerating expansion, a scheme

<sup>43</sup> F/8304/(a)H(M)

<sup>44</sup> For details of training of specialists see Volume on *Medicine Surgery and Pathology* and Volume on *Prevention of Diseases Malaria Control and Nutrition*

<sup>45</sup> F/10028/H(M)

<sup>46</sup> F/10073/H(M)

<sup>49</sup> F/8808/25/H(M)

<sup>46</sup> F/8803/47/H(M)

<sup>48</sup> F/8821/1/H(M)

<sup>50</sup> In the early stages of the war the training of IHC recruits in hospitals was carried out on the lines laid down in *Standing Orders for the Indian Hospital Corps, 1938*

to turn out trained Army recruits in six months was introduced. It meant long working hours and cutting down leisure to the minimum. The great emphasis given to field craft will be obvious from the time (in percentages given below) devoted to the various subjects in the revised syllabus<sup>51</sup> issued in March 1941 :—<sup>52</sup>

Field craft including map reading	..	.	39
Weapon training	...	.	25
Physical training	..	.	13
Make and mend etc.	.	..	10
Drill	.	.	6
Antigas training	.	..	4
Marching	.	..	2
Lectures	.	.	1

The above scheme was primarily introduced for the training of infantry recruits but training centres for other arms and corps were also ordered to adopt it.

The programme of training for IHC recruits was revised in June and July 1941. Under the revised scheme recruits after one week of joining the service attended different periods of training the actual duration of the course depending on their trade<sup>53</sup>.

In 1942, it was decided that training should be wholly for operations in the eastern theatres. The two active formations mentioned earlier were, therefore, converted, in 1943, into training divisions and located in jungle country. Recruit training could then be undertaken in two discrete phases *viz.* a pre-basic and basic period in existing training centres with the object of producing basically trained ambulance sepoy, nursing orderlies, clerks, store-keepers and NCs(E), and a post basic training in a training division either in a field ambulance or field hygiene section.<sup>54</sup>

The most important problem, however, was the quality of the recruits, many of whom were illiterate. By the end of 1942, it was obvious that unless conditions were improved there would be the danger of a breakdown in the medical services. Immediate action to improve the existing situation<sup>55</sup> was initiated with the formation of the IAMC.

From early 1943, the question of training was given very serious attention and the following measures were taken to improve it.—

- (i) A substantial increase in the establishment of training and depot centres was authorised.
- (ii) Additional equipment was authorised for technical training such as complete equipment for a 26 bedded ward for the training of the nursing section, typewriters for the training of clerks and equipment for an ordnance museum for training store-keepers in each centre.

<sup>51</sup> Recreational and educational training was also given but was not included in the percentages

<sup>52</sup> H/6/32/H(M)

<sup>54</sup> H/6/32/H(M).

<sup>53</sup> F/Z-23889/H(M)

<sup>55</sup> See also page 94.

- (iii) Certain large hospitals were selected in each Army and Command at which courses of instruction for nursing personnel, cooks etc, were arranged
- (iv) Courses of instruction under appropriate specialists in X ray, laboratory work, mental nursing, special treatment like venereal diseases were arranged

All recruits enlisted for the IAMC were sent to one of the three training and depot centres, where they received preliminary training for periods which varied for each trade. At the conclusion of this training, they were posted for practical training in their particular category to large garrison hospitals.

Training at the centres consisted of basic military training and elementary technical training. Under basic military training they received instruction in both military and general subjects, like physical training, foot drill, antigas, first aid and hygiene. Thus with the exception of weapon training, it was exactly the same as that of an infantry soldier. On its completion suitable technical training was also carried out so that at the end of their stay at the training centre recruits were well disciplined, fit, well nourished and sufficiently educated to assimilate instruction and possessed elementary knowledge of their trade. The officers commanding, and medical officers attached to the medical units to which these men were posted, were required to ensure that further training was taken seriously and continued along organised lines.

From August 1944, IAMC other ranks were also trained<sup>56</sup> for five weeks in the 14th and 39th Divisions prior to being posted as reinforcements to units in the Eleventh Army Group. The syllabus included physical training, riding and animal management, jungle craft, route marches and toughening, weapon training (rifle), noise training, watermanship, river crossing and swimming. Technical training was given to personnel of field ambulances, field hygiene sections and anti malaria units. In December 1944, it was decided that post basic military training to medical personnel for five weeks would be given in the Field Ambulance Training Wing of the AMTC prior to their being posted as reinforcements to units in Italy, Persia and Iraq Command and the Middle East.<sup>56</sup>

#### THE TRAINING OF THE CLERICAL AND STORES SECTIONS

From July 1941, personnel enlisted for these trades spent a period of twelve weeks in the training and depot centres. They were also trained at medical units in clerical and store duties. The military training included physical training, drill, route marches, first aid, anti gas measures, hygiene, passive air defence, tent pitching, and field craft. The educational training at the centres was concentrated on the English language with the object of bringing them up to the Indian Army First Class English standard.

Clerks were taught the elements of office procedure and typing, and were introduced to the various Army forms, books and regulations. Similarly, store-keepers were taught office procedure, maintenance of books, compilation of forms, reports etc. The various items of equipment and stores in use in medical units were also explained to them.

On the conclusion of recruit training, they were posted to large hospitals and counted against the authorised establishment. It was then the duty of the officer commanding these units to train them with a view to turning them into efficient clerks and store-keepers.

In August 1944, an extension of two weeks was authorised in the existing training period of the clerical and stores sections in the training and depot centres making a total period of fourteen weeks. Technical training for the clerical section included instruction in the organisation of the Army and the medical services, correspondence, typing, drafting, security and censorship, books, forms, stationery, leave rules, reports and documents. Technical training for the stores section covered lectures on clothing and personal equipment, issue and receipt vouchers, stock, charge and recoveries, condemnation boards, local purchases, RIASC supplies, military engineering stores, medical and Red Cross stores, ordnance equipment, correspondence and filing and transport.<sup>57</sup>

From March 1945, personnel in charge of stores in the hospitals were also attached to various Army medical stores for training in stores layout, standard packing, accounts, stock taking, block list item and dealing with the railways.<sup>58</sup>

#### THE AMBULANCE SECTION

The object of recruit training for the ambulance section was to develop the recruit's mind and body so that he went to his unit resourceful, fit and alert. He was required to understand the general system of evacuation in the field, and to learn how to function under abnormal conditions of terrain and climate. He received particular training in the various methods of transportation of casualties in the field and also the duties of an ambulance sepoy in a field ambulance, including the layout and function of the MDS and the advanced dressing station (ADS), loading of transport, and tent pitching. After the basic military training ambulance section recruits were given training in first aid, hygiene and sanitation, physical training, stretcher drill, passive air defence and antigas training, field training, intercommunication in the field, movement by road or by rail, tent pitching, improvisation of stretchers and motor ambulance car loading. The first aid treatment of battle casualties included also injuries due to air action and chemical warfare. The course lasted

<sup>57</sup> F/8819/1/H(M)

<sup>58</sup> F/8802/2/H(M)

sixteen weeks and the distribution of working periods (in percentages) was as follows —<sup>59</sup>

First aid and field ambulance duties	24
Field hygiene and sanitation	2
Physical training	20
Drill (including stretcher drill)	9
Passive air defence	2
Antigas training	3
Field training	26
Miscellaneous lectures and revision	14

#### THE TRAINING OF THE NURSING SECTION

From 1941 onwards the training programme for the nursing section included miscellaneous military subjects (routine discipline etc.), physical training, drill (squad and stretcher), route marches, education, first aid, antigas training, hygiene and sanitation, field craft including passive air defence, tent pitching etc and mechanical transport technique (embussing, debussing, loading etc). The total course lasted eight weeks. Overseas commitments, however, did not permit the implementation of the full course and a provisional course of five weeks duration was introduced.

After this basic military training these personnel were posted to hospitals where in addition to the training laid down in Appendix II to the *Standing Orders for the IHC*, they were also given instruction in the nursing of casualties, including burns, effects of blast, etc., passive air defence in hospitals and the technique of loading and unloading the casualties from mechanical transport. They were also allotted one period a day for physical training and education each and three periods a week for miscellaneous military subjects.<sup>60</sup>

Since early 1943 the nursing section had been completely re-organised as regards the selection of recruits and their training. In order to raise the standard of nursing in medical units and to compensate to some extent for the shortage of nursing officers it was very necessary to attract educated men and to train them to a high standard of proficiency in a short time. In March 1942, recruitment of male nurses, who had already undergone three years training and were registered with one of the Provincial Nurses Registration Councils, was started. They were initially appointed as WOs in the IMD and were employed for training the nursing orderlies. With the formation of the IAMC on 3 April 1943, the fully trained civilian male nurses were appointed direct as VCO cadets. A new class of recruit possessing pre-matriculate educational standard (IX/X Class) was also enlisted as specialist improver. There were thus three types of recruits in the nursing section viz, VCO cadets, specialist improvers,<sup>61</sup> and nursing orderlies.<sup>62</sup>

<sup>59</sup> F/Z 23889/H(M)

<sup>60</sup> F/Z 23889/H(M)

<sup>61</sup> The VCO cadets and specialist improvers were also appointed in specialist cadres of radiographers and laboratory assistants. For details of training of specialist cadres (including special treatment orderlies) see Volume on *Medicine Surgery and Pathology*.

<sup>62</sup> AI(1)114/1943

These VCO cadets received four weeks basic military training at Nos. 1, 2 or 4 IAMC Training and Depot Centres, before posting to large hospitals or training centres as instructors in nursing duties.<sup>63</sup>

Specialist improvers were required to undergo a twenty weeks basic military and nursing training similar to that of the nursing orderlies. Thereafter they were given the same training as for VCO cadets.

The minimum educational standard required for nursing orderly recruits was Anglo-Vernacular Standard VI. They were given a period of six weeks basic military training and a further six weeks elementary nursing training at a training centre and a further period of eight weeks at specially selected garrison hospitals, before they could count against authorised establishments. At the training centres all recruits had to pass the Third Class Indian Army English Examination before leaving the centre. Non-Urdu speaking recruits were also taught spoken Hindustani up to the Third Class Roman Urdu Standard. The last six weeks at the centre were spent under the direction of the technical training officer, who was assisted by a matron instructor, nursing sisters, a staff of male nurses and specially selected NCOs.<sup>64</sup> The training was carried out in a fully equipped model ward of twenty-six beds. Nursing training included instruction in elementary anatomy and physiology, bed making, handling of drugs, taking and recording of temperature, pulse and respiration rates, taking of laboratory specimens such as blood slides, giving of enemas and administration of medicines. An examination for the elementary nursing certificate was held at the end and only those who were up to the required standard were sent to the hospitals for further training.<sup>65</sup>

Certain large base and garrison hospitals in each Army and Command were selected as training hospitals,<sup>66</sup> where training was carried out under the supervision of the matron. The lectures and demonstrations were usually given by the senior sister and selected

<sup>63</sup> F/10001/H(M)

<sup>64</sup> F/2037/H(M)

<sup>65</sup> F/8819/3/H(M)

<sup>66</sup> *List of training hospitals—nursing section—February 1944*

*Southern Army*

No 2 IBGH (IT), Kirkee  
No 8 IBGH (IT), Deolali  
IMH, Poona  
IMH, Dunkirk  
CIMH, Deolali  
IMH, Secunderabad  
IMH, Bangalore

*North-Western Army*

CIMH, Abbottabad  
CIMH, Peshawar  
CIMH, Jhelum  
IMH, Nowshera  
CIMH, Kohat  
CIMH, Quetta  
IMH, Rawalpindi  
No 6, IBGH (IT), Karachi  
CIMH, Bannu  
CIMH, Campbellpore  
CIMH, Multan

*Central Command*

IMH, Lucknow  
No 129 IBGH (IT), Lucknow  
No 131 IBGH (IT), Moradabad  
CIMH, Roorkee  
CIMH, Dehra Dun

CIMH, Agra  
No 130 IBGH (IT), Lucknow  
No 135 IBGH (IT), Bareilly  
IMH, Meerut  
IMH, Jhansi

IAMC officers NCOs, additional to the authorised strength, were provided for whole time employment as instructors in these hospitals. The course at the training hospitals lasted eight weeks and consisted of instruction and practical demonstration in all branches of the nursing orderlies' ward work. Another test was held at the end of this training and those who were up to the required standard were graded as nursing orderlies grade III, after which they could be employed in large hospitals against authorised establishments. They remained in large hospitals and received further training until they qualified for higher grade nursing certificates and the military nursing diploma. Matron examiners<sup>67</sup> were posted to each Army/Command for whole time duty in connection with the conducting of nursing certificate examinations.

The main difficulty in training nursing section personnel was that of finding suitable technical training officers. A technical training officers' course<sup>68</sup> of four weeks duration, two weeks at No 8 IBGH (IT), Deolali South, and two weeks at No 3 Training and Depot Centre was, therefore, started in July 1944. Owing to the frequent changes of officers in the hospitals, it had been found impossible to maintain continuity of training of nursing section personnel. In many cases category A officers had been selected without due regard to the fact that it was this category of officers who were subject to frequent transfers. It was, therefore, decided in May 1944, that officers commanding hospitals should select such officers from (a) IAMC(SMS) over forty-five years of age, (b) IAMC (ex-IMD) who had been granted B class commission in IAMC on account of their being medical category C permanently, (c) IAMC women officers and (d) IAMC officers category B.

#### THE TRAINING OF THE GENERAL SECTION

General section personnel were trained for a period of six weeks at the training and depot centres and were then posted against the authorised establishments of medical units. The manpower situation did not permit of their being posted as surplus to establishment as in the case of nursing section trainees.

Special courses of training for cooks had been introduced under arrangements made by the GHQ. Cooks (IT) while at the centres, were given six weeks technical training in cooking the ordinary Indian rations and were not allowed to leave the centre until they had passed the trade test for cooks. They were then posted against the establishment of selected large hospitals, where they received further instruction in cookery, particularly hospital cookery, until they passed the appropriate trade test for hospital cooks grade II and grade I. Cooks (BT) were given a course at the Indian General Service Corps School of Cookery at Aurangabad, they were then posted to large British hospitals and were trained in hospital cookery for British troops and were upgraded to cooks hospital (BT) grade II.

<sup>67</sup> F/3610/-2/H(M)

<sup>68</sup> F/8803/36/H(M)



and I. Refresher courses for hospital cooks (BT) were also held in Aurangabad and Bangalore. Ward servants, washermen, water carriers and sweepers were similarly given training appropriate to their trade.<sup>69</sup>

#### THE TRAINING TEAM

In November 1942, IHC training teams, two per Army/Command, each consisting of one general duty jemadar and eleven havildars, were formed. The personnel selected for the teams were given a course of instruction at the VCOs and NCOs School. They were then placed at the disposal of the DDsMS. In March 1943, these were placed under the control of the Commandant AMTC.<sup>70</sup> These teams visited medical units or group of units, gave intensive training to unit NCOs and arranged demonstrations.

#### THE TRAINING OF REINFORCEMENTS FOR FIELD AMBULANCES

Until December 1943, no facilities existed for the requisite training of reinforcements in the particular duties applicable to personnel of field ambulances. It was, therefore, arranged that the field Ambulance Training Wing at the AMTC would train such reinforcements in addition to its role of raising field ambulances. The preliminary training at the wing was designed to give instruction in basic military and technical training applicable to field ambulances. The duration of the course was six weeks with an interval of one week between each course. The first course was started on 17 January 1944.<sup>71</sup>

<sup>69</sup> F/8804/18/H(M)

<sup>70</sup> F/2570/H(M)

<sup>71</sup> F/10003/H(M)

## CHAPTER XII

### The Medical Units

The medical organisation for a field force at the commencement of World War II differed little in principle from that in existence and relating to operations on the North West Frontier of India. It was soon realised that the organisation suitable for positional warfare was not adequate for situations likely to be faced in an encounter with highly mechanised forces. A re-orientation of the field medical organisation thus became inevitable. The existing units were re-organised and new ones were introduced to suit the changed situation. These changes were, however, made gradually and in some cases at a very late stage.

#### THE SITUATION BEFORE WORLD WAR II

Each battalion and certain other units had a medical establishment which consisted of one medical officer and one lance corporal provided by the unit for duty as the regimental medical officer's orderly. Regimental personnel were detailed as regimental stretcher bearers and were placed under the orders of the medical officers. In addition, unit personnel were specially trained in water purification and sanitary duties. A number of small units did not have a medical officer on their establishment but had certain regimental personnel trained in first aid, water purification and sanitary duties. In technical matters the officer in medical charge of the unit was directly under the control of the administrative medical officer of his formation or area, usually the ADMS, but in all other respects he was under the orders of the officer commanding the unit. The regimental medical officer established the regimental aid post (RAP) which was normally located in close proximity to the unit headquarters. During operations he stayed at the RAP and ensured that all casualties were speedily evacuated to the ADS of the field ambulance.

The field medical units included the field ambulance, the sanitary (hygiene) section, the motor ambulance convoy, the bearer unit, the casualty clearing station, the staging section, the general hospital, the mobile x-ray unit, the field laboratory, the convalescent depot, the advanced depot medical stores and the ambulance train.

The organisation of the field ambulance had evolved as a result of experience gained during World War I and the operations on the North West Frontier of India. It consisted of a headquarters and two companies. The headquarters was designed to form a MDS. Each company was capable of establishing an ADS. The ADS was equipped and staffed to provide stretcher squads for evacuating casualties from the RAP. The evacuation of casualties from the ADS was carried out by 6 six wheeled motor ambulance cars attached

to each field ambulance. A divisional pool of 40 animals was also maintained for the clearance of casualties from the ADS. Three field ambulances were normally provided for a division. Immediately before the outbreak of the war there were three types of field ambulances. These were : the field ambulance (field army), the field ambulance (covering troops) and the field ambulance (external defence troops).

The personnel of the sanitary section performed the duties of sanitary police, advisers and inspectors on hygiene matters. These units were allotted on a scale of one per division and on an 'as required' basis for Army and L of C troops. The sanitary section was a small unit divisible into sub-sections, which were attached to the field ambulances of brigades operating independently. The sanitary sections were later designated field hygiene sections.

The motor ambulance convoy normally consisted of a headquarters and three sections of 25 motor ambulance cars each. The function of this unit was to evacuate casualties from one medical unit to another, *e.g.* from the field ambulance to the CCS and from the latter to the ambulance trains. The normal allotment was one per corps but here again the allotment depended upon the nature of operations and the length of the L of C. The motor ambulance convoy also assisted in the conveyance of medical supplies.

The bearer unit consisted almost entirely of IHC ambulance section personnel and was used when operations took place in a roadless country. Each army usually had one bearer unit.

The CCS<sup>1</sup> was equipped for 200 patients. It afforded medical and surgical treatment for casualties at a point as near the scene of battle as possible. One CCS was normally allotted to a division in the field. The number of CCSs with a force varied with the length of the L of C.

The staging section was equipped for 25 patients. Its role was to establish rest and refreshment stations along the route of evacuation of casualties.

Separate general hospitals of 500 and 520 beds were mobilised for Indian and British troops respectively. Twenty beds in general hospitals for British troops were reserved for officers. These hospitals were mobilised in numbers sufficient to provide beds in the ratio of 7.5 per cent. of Indian troops and 10 per cent. of British troops of the force.<sup>2</sup>

<sup>1</sup> The importance of the field ambulances and the CCSs is realised when the statistics of World War I are considered. It was found that 55 per cent. of all deaths from wounds and 33 per cent. of deaths from all causes occurred while the casualties were in these units.

<sup>2</sup> F/Z-10479/H(M)

## THE EVOLUTION OF FIELD MEDICAL UNITS DURING WORLD WAR II

## THE FIELD AMBULANCES

The field ambulance was essentially a mobile unit and as such could only provide the simplest accommodation and treatment. Cases requiring more elaborate care were evacuated to medical units organised and equipped to deal with complicated cases. A field ambulance was usually organised into MDS, two ADSs, and the required number of casualty clearing posts and rest stations.

The location of the MDS varied with the type of country over which the force was operating, but it was protected from hostile small arms fire and was sited within easy access of the main L of C. It was the main holding unit of the field ambulance.

The ADS was formed by a company of the field ambulance and was meant to afford only the most urgent treatment such as that of shock, the arrest of haemorrhage and the immobilisation of fractures. It was the responsibility of the ADS commander to collect casualties from the RAPs, provide any necessary treatment, speedily evacuate casualties to the MDS, maintain communication with the regimental medical officer and officer commanding the field ambulance, and arrange for the replenishment of medical stores and equipment at the RAP.

The casualty clearing post was formed by a section or part of a section of a field ambulance. It was highly mobile and was normally established when the lines of communication between the RAP and the ADS or between the ADS and the MDS were too long. If the terrain was suitable for motor transport, ambulance cars were detailed to carry the casualties to and from the casualty clearing post, otherwise, they had to be hand carried or transported on mules or ponies.

The field ambulance in reserve was usually allotted the task of providing rest stations for the treatment of minor ailments, which were not uncommon. It saved divisional manpower, avoided long complicated evacuation of cases and prevented overcrowding at the CCS.

During action the field ambulance provided a detachment to the RAP for evacuating casualties. The composition of this detachment varied with the terrain, distances involved and the state of communication. For example, stretcher bearers or mules fitted with stretchers were provided during mountain warfare, ambulance cars or jeeps fitted with stretchers in a country with good roads, and a company of a field ambulance in a combined operation. In actual operations usually only three companies of the three field ambulances and one headquarters of a field ambulance provided the medical cover to a division. The company attached to the reserve brigade

was in fact actually committed. The divisional reserve normally was, therefore, two headquarters and three companies.

During the war 90 field ambulances were either raised as new units or re-organised from one type into another. These included 67 field ambulances, 3 armoured brigade field ambulances, 1 motor brigade field ambulance, 15 light field ambulances, 1 field ambulance (light division), and three field ambulances (parachute). Two field ambulances were converted into light field ambulances; 1 was re-organised as a beach medical unit, 9 were lost in Malaya and 2 were disbanded before August 1945. Three armoured brigade field ambulances and one motor brigade field ambulance were converted into light field ambulances. Two light field ambulances were converted into field ambulances, 4 were disbanded in 1943 and 1 light field ambulance and 1 field ambulance (light division) were converted into field ambulance (parachute).

The designation, organisation and composition of the field ambulances changed from time to time. This change largely depended on the role and composition of the divisions to which they were required to provide the medical cover.

*Field Ambulance (Animal and Mechanical Transport)*. The field ambulance (covering troops) was slightly modified to form the field ambulance (India). Its establishment was revised in June 1941, and was mainly based on the field ambulance (external defence troops). In August 1941, the establishment of the unit was again revised and the unit was called a field ambulance (lower scale). The unit was provided with additional transport. A field ambulance troop RIASC could also be attached to it to make it completely mobile on an all pack basis. The establishment of this unit was revised for the third time in October 1942, and the unit was then called a field ambulance (mixed transport). This designation was finally changed to that of field ambulance (animal and mechanical transport). The transport provided in the final establishment included 2 light motor cycles, 6 ambulance cars, 5 3 ton general service lorries, 2 30 cwt. water tank lorries, 7 riding horses, 17 riding ponies and 34 pack mules.

The basic composition of the unit remained unaltered, i.e., the unit was divided into a headquarters and two companies. The additional personnel and transport provided in the revised establishment made the unit mobile and flexible. The unit could have an administrative headquarters capable of forming an administrative section and providing personnel for a light or a heavy MDS. Each company could form an ADS or could be divided into a company headquarters and two platoons. Each platoon could form a light ADS. The composition of the administrative headquarters, company headquarters and platoon was as follows.—

<i>Administrative headquarters</i>	<i>AIDS</i>	<i>Company headquarters</i>	<i>Each platoon</i>
Commanding officer (Lieut colonel)	Major *	Company com- mander	Officer or VCO
Quartermaster	2 Captains or subalterns	1 Corporal RAMC	1 Nursing order- ly RAMC
Subedar general duty ambulance	1 Staff sergeant	1 Havildar, ambulance section	1 Naik ambulance section
1 Havildar, clerk grade I	2 Sergeants 7 privates	1 Havildar, clerk grade III	16 Sepoys, ambulance section
1 Havildar, clerk grade II	5 Havildars, stores section	1 Havildar, stores section grade III	1 Sepoy,ambu- lance section antigas
	1 Havildar,ambu- lance section		1 Sepoy, nursing section
	37 Other ranks, IAMC		4 NCs(L)
	33 NCs(E)		

*Attached**RIASC*

- 1 Captain or lieute-  
nant
- 1 Jemadar
- 2 Havildars (MT)
- 4 Naiks (MT)
- 1 Motor mechanic
- 4 Motor cyclists
- 32 Drivers (MT)
- 17 Drivers (MT)  
(spare)

*IEME*

- 1 Fitter
- 1 Electrician

\*In January 1944 he was designated as second in command

In April 1945, proposals were made regarding the composition of the Indian airborne division under which the ratio of Indian and British troops varied considerably in each brigade of the division. To meet this new situation a revised war establishment was proposed for the unit to provide the flexibility necessary to support any brigade in action and which could readily be re-organised to meet the requirements of a change in the composition of the brigade which it normally supported. The establishment catered for a re-organised unit consisting of a mixed headquarters and five sections (Indian and British) according to the proportion of the troops in the brigade. The normal composition was 3 Indian and 2 British sections. The unit was designated parachute field ambulance combined. A proportionate increase, necessitated by expansion, from 4 to 5 sections was later made both in personnel and transport.<sup>7</sup>

#### THE FIELD HYGIENE SECTIONS

During the war 84 field hygiene sections were either raised as new units or were converted from one type into another. These included 70 field hygiene sections, 3 light field hygiene sections, 1 armoured division field hygiene section, 1 field hygiene section (light division) and 9 field hygiene sections (standard division). These field hygiene sections included the one converted from the light field hygiene section. The armoured division field hygiene section was later re-organised into a light field hygiene section, and 1 field hygiene section (light division) and 8 field hygiene sections were converted into field hygiene sections (standard division). In addition to the above 3 detachments, field hygiene sections consisting of headquarters and 1 section each were also raised. Four field hygiene sections and two detachments field hygiene sections were lost in Malaya. One field hygiene section and 1 detachment field hygiene section were disbanded in 1942.

On the outbreak of World War II it was decided to raise field hygiene section on the basis of two per division; one of which was to be a divisional unit and the other a L of C unit. At a later date it was realised that owing to the lengthy and difficult lines of communication, especially on the eastern frontier, and the need for these units in training areas this provision was inadequate. The scale for raising them was then increased to three per division. The unit was organised into headquarters and three sub-sections.

The first revision of the war establishment of this unit was made on 9 August 1939, when one RIASC driver and one lorry for the disinfectors were also authorised for the section.

The officer commanding the unit was to be a captain or subaltern. The special features of the establishment were that 1 havildar for headquarters and 1 naik and 2 sepoy for each section were to be provided by the internal security units, on mobilisation, and NCs(E)

<sup>7</sup> F/2317/H(M), F/3601/38/H(M)

and followers were to be provided by local recruitment. For a field hygiene section employed on the L of C, 54 additional sweepers and 40 labourers could be demanded by the headquarters of the formation to which the unit was allotted. For field hygiene sections not on the L of C, such personnel could be demanded only in exceptional circumstances. Cooking arrangements and water supplies for a sub section of the field hygiene section when operating with a brigade detached from a division, were found from those allotted to the field ambulance to which it was attached. In November 1940, a revised establishment for the unit was drawn up. In view of the expansion of the Army in India, personnel from internal security units were no longer available for attachment to the field hygiene section and were, therefore, replaced by RAMC and IHC personnel. A staff sergeant RAMC was added to the headquarters who was to take charge of the section in the absence of the officer commanding.

By August 1942, the appointment of DADH had been abolished from the establishment of the division and it was found that the administrative duties of the DADMS left him no time for any work in connection with hygiene. The officer commanding the field hygiene section had, therefore, to undertake a large part of the work formerly carried out by the DADH in addition to his own duties. A recognised specialist in hygiene, with the acting rank of major, was, therefore, appointed as officer commanding the unit in order to enhance his status in the division and to give weight to his recommendations. This measure was adopted with effect from 1 October 1942. The establishment was further amended in July 1943, as it was considered too weak in inspectorial and supervisory staff and it had too many labourers. Provision was made for the appointment of selected non medical officers to command the field hygiene sections with non divisional troops in order to conserve medical manpower. The appointment of staff sergeant in headquarters was upgraded to the WO class II, as he had to take charge when the officer commanding the unit was on tour, the privates authorised were upgraded to corporals and a reduction was made in the number of labourers. In June 1944, the officer commanding was allowed the rank of captain in non divisional field hygiene sections. The transport finally authorised for the units was 1 station wagon, 5 15 cwt trucks, 1 3 ton lorry for disinfectant and 6 bicycles.<sup>8</sup>

*Light Field Hygiene Section* The existing war establishments for a field hygiene section and field hygiene section (external defence troops) were not suitable for an armoured division, where it was necessary that the unit should be fully mobile. No transport for this purpose was provided in the existing establishments. Further, these establishments were too large for an armoured division field hygiene section. A revised establishment was, therefore, suggested in December 1940. The transport authorised for the unit

<sup>8</sup> F/Z 19027/H(M) F/Z 19043/H(M)



was : 1 car 4 seater, 3 trucks 15 cwt. general service, 1 lorry 30 cwt. general service for disinfectant and 3 lorries 30 cwt. for personnel.

In June 1942, sweepers in the establishment were replaced by an equal number of labourers, as the former were not easily available. In May 1943, owing to the wide dispersion of armoured formations, it became necessary to increase the mobility of the inspecting staff of a light field hygiene section. Consequently 3 motor cycles were authorised for the unit.<sup>9</sup>

*The Field Hygiene Section (light division)* : A field hygiene section with a light division was required in 1942. The reasons for this special type of unit were the same as for a field ambulance (light division). It was decided that in such a unit 2 sections should be organised on pack, the remaining section and headquarters to continue on a mechanised basis and work at the road head. The transport provided for this unit included 1 recce car, 1 15 cwt. general service truck, 2 3 ton general service lorries and 18 mules.<sup>10</sup>

*The Field Hygiene Section (Standard Division)* : In August 1944, a new establishment for a field hygiene section for a standard division as distinct from a non-divisional field hygiene section was drawn up. The only difference in this establishment from that of an ordinary field hygiene section was in transport, which was authorised at the following scale—3 motor cycles, 4 5 cwt. cars, 2 3 ton general service lorries, and 4 5 cwt., two wheeled trailers.<sup>11</sup>

#### THE BEARER UNITS

The war establishment for a bearer unit which existed at the outbreak of the war included 2 medical officers, 4 WOs, 505 other ranks (including 476 ambulance bearers and 29 NCs(E) with pack transport). A unit of this type had been demanded by Malaya Command in 1941, but it had not been possible to provide it without delaying the dates of readiness of other commitments. Instead the Dewas Senior Medical Detachment, which was an Indian State Forces (ISF) unit and had been lent for service overseas, was sent. This unit consisted of 1 non-medical subedar, 1 sub-assistant surgeon, 1 havildar, 2 naiks, 4 lance naiks, 25 sepoy (ambulance bearers) and 4 sepoy as reinforcements. It was suggested that Malaya Command might recruit the balance of the ambulance bearers locally and train them in the three field ambulances then in Malaya.

In 1942, it was decided to raise a light division. It was necessary to provide means for transporting to the roadhead such casualties in this division as were unfit to be carried on mules. This necessitated the resurrection, in a modified form, of the old bearer unit. It was further considered necessary to provide for the carriage of 25 cases at any one time. The establishment for a bearer company, as the unit was then designated, was drawn up in August 1942. The staff

9 I/Z - 21769/H(M), F/3601/59/H(M)

10 F/2206/HM, F/2446/H(M), F/3601/60/H(M)

11 F/3601/118/H(M)

authorised was—1 officer, 2 jemadars, 4 havildars, 222 other ranks and 4 NCs(E). Later an increase of 2 havildars, 26 other ranks and 18 NCs(E) and 7 MT drivers was authorised. The bearer company was divisible into 2 bearer sections each of 1 havildar, 2 naiks, 4 lance naiks and 96 sepoy. It was capable of carrying 25 patients at any one time allowing 8 men, working in relays of 4 at a time, for the carriage of each case. The first bearer company was raised on 10 November 1942, and in all 15 such units were formed during the war.<sup>12</sup>

#### THE CASUALTY CLEARING STATIONS

The CCS was organised into 1 light section of 50 beds, a heavy section of 150 beds and an administrative headquarters which could be attached to either a light or heavy section. The light section had an operating team attached to it which could be moved forward as required. The heavy section was divisible into two half sections of 75 beds each, and could be moved forward in two lifts. In the earlier stages the unit was authorised only 7 officers which included 1 surgical specialist. Later an anaesthetist was added. One matron and 7 nursing sisters could be authorised for certain units under orders from the GHQ. In November 1943, the number of officers was increased to 10, which included a quartermaster. The establishment was again revised in January 1945, and a graded physician was authorised instead of one general duty medical officer. In May 1945, provision was made for the attachment of 1 mobile X-ray unit with a radiologist.

Casualties from this unit were evacuated to the general hospitals or to the convalescent depots. The light section could be moved forward to take over from a field ambulance. Its rapid advance was thus most useful as the heavy section thereby got time to dispose of casualties before it rejoined the light section. During static warfare the CCSs could be grouped together. During the advance of 1 force the CCSs were usually employed in echelon, so that while one was opened the other was packed up to go forward.<sup>13</sup>

Twenty four CCSs were raised during the war, of which one was lost in Malaya and two were disbanded in 1944.

#### THE STAGING SECTIONS

During the early stages of the war staging sections were raised as separate units for Indian and British troops. The establishment of the two types of units was more or less identical except that an IMS officer and IHC nursing personnel were authorised for the unit for Indian troops, and a RAMC officer and nursing personnel for the unit for British troops. Staging sections were sited to establish resting and refreshment stations on the L of C. Staging sections for Indian

<sup>12</sup> F/Z-22348/H(M) F/2206/H(M) F/3601/89/H(M)

<sup>13</sup> F/Z 19075/H(M) F/3601/52/H(M)

troops were also used to form hospitals for labour and railway companies.

Towards the end of 1940, a combined staging section, later designated staging section (combined) was formed. Such units in the beginning functioned in the Middle East for a year and after sufficient experience had been gained of their working, a regular war establishment was drawn up in February 1942. By 1943, all Indian and British staging sections were organised as staging sections (combined) with the exception of a few which were then overseas. The unit was designed to hold 20 Indian and 5 British beds capable of expansion to 40 Indian and 10 British beds.<sup>14</sup>

One hundred and twenty-four staging sections were raised either as new units or re-organised from one type into another. These included 30 staging sections (IT), 16 staging sections (BT) and 78 staging sections (combined). Seven staging sections (IT) and 11 staging sections (BT) were converted into staging sections (combined). One staging section (IT) was lost in Malaya. One staging section (IT) and 2 staging sections (BT) were disbanded before the end of the war.

#### THE FIELD HOSPITALS

In 1943, the need had arisen for an improved type of staging section capable of accommodating 100 patients and of providing emergency surgical treatment. A unit of this type was required for isolated air-fields remote from other medical units and in combined operations to act as a beach medical unit. The establishment was authorised in June 1943. It was designed to provide field hospital accommodation with surgical treatment for 25 Indian and 75 British troops, which was the proportion required for the special formation for which this unit was designed. In order to allow for elasticity and unforeseen local changes 50 of the British beds were equipped to take Indian troops if necessary. Adequate transport was also provided to give the field hospital the mobility essential for an isolated unit of this type. Using several lifts and supplemented by such other transport as might be available it could move rapidly. This transport was not required when the unit was allotted for combined operations.<sup>15</sup> The first field hospital was raised on 15 June 1943 and, in all, five such units were raised. Two of these were later re-organised as beach medical units.

#### THE BEACH MEDICAL UNITS

In combined operations the field hospital was generally considered inadequate for the task it was required to perform. In fact it was usually employed together with attached personnel borrowed for operational purposes from other units. This continuous makeshift

<sup>14</sup> F/Z-19034/H(M), F/Z-19035/H(M),  
F/Z-22662/H(M), F/3601/56/H(M),  
F/3601/57/H(M)

<sup>15</sup> F/2309/H(M)

arrangement was unsatisfactory, hence a war establishment for the beach medical unit was drawn up which would enable it to operate independently

The officer commanding the unit also acted as senior medical officer of the beach group and embarkation medical officer. This establishment was sanctioned in July 1944. Two existing field hospitals were re-organised on this establishment on 10 September 1944.

When this establishment was issued the unit was more or less in the experimental stage. When in operation on a beachhead, the unit was required to hold and treat casualties and undertake major surgery until such time as the evacuation from the beach was possible, and was also responsible for all medical commitments on the beachhead: i.e., hygiene, sanitation, evacuation of casualties etc. In order to meet these needs the establishment was revised in February 1945. The principal changes in the revised establishment were the introduction of a major, as second in command, and 1 anaesthetist. Corresponding adjustments were also made in the other rank personnel.<sup>16</sup> In all, three beach medical units were raised during the war, one being converted from a field ambulance.

#### THE MALARIA FORWARD TREATMENT UNITS

The malaria forward treatment unit (MFTU) was capable of holding and treating 600 patients. Special facilities for the examination of blood slides were available and specialists with expert knowledge of malaria were on the staff of these units. It was planned to provide each division operating in a malarious country with two such units. It was hoped that the loss of manpower caused by malaria would thus be reduced. The plan that was formed in March 1944, was to provide a total of 16 units of this kind. By that time 4 such units were with the Fourteenth Army, an additional 4 were to move in at the end of March 1944, and the remaining 8 at the end of April 1944.<sup>17</sup>

#### THE GENERAL HOSPITALS

Considerable re-organisation took place in the types and composition of general hospitals raised. In all 117 general hospitals were raised. These included 37 general hospitals for Indian troops, 9 general hospitals for British troops and 71 general hospitals (combined). Fourteen general hospitals for Indian troops and 8 general hospitals for British troops were re-organised as general hospitals (combined). Three general hospitals for Indian troops and 3 general hospitals (combined) were lost in Malaya. One general hospital (combined) was disbanded before August 1945. Eight hospital detachments and 24 sections of general hospitals were also raised. By August 1945, all these detachments and sections, excepting 4 sections of general hospitals, were either lost, disbanded or amalgamated with the other hospitals. The total authorised bed strength of general

<sup>16</sup> F/3601/2/H(M)

<sup>17</sup> F/3601/86/H(M) See also page 317

hospitals and sections of general hospitals on 15 August 1945, was 50,085 for Indian troops (including 600 beds with the British general hospitals) and 11,950 for British troops.

General hospitals were mobilised in sufficient numbers to provide bed accommodation on the scale of 8 per cent. for Indian troops and 10 per cent. for British troops operating in an area. Provision was also made for the expansion of these hospitals in an emergency. They were located at the bases or L of C areas. When the lines of communication were long, a few of these were sited in the advanced base areas near the rail or road heads.

*The General Hospital for Indian Troops* : The existing types of general hospitals for Indian troops were Indian general hospital (India) and Indian general hospital (external defence troops). Initially only the establishments for these types of hospitals had been drawn up ; the hospitals did not actually exist as formed units. A revision of the establishment of an Indian general hospital (India) was undertaken in September 1939. The establishment was to cater for a hospital consisting of a headquarters and a section of 100 beds capable of expansion to a total of 10 sections.

In November 1940, an amendment was proposed in the hospital establishment showing the number of majors authorised as distinct from the captains or subalterns. Majors were appointed as officers in charge medical and surgical divisions and registrars. In March 1941, the establishment was again revised and the new establishment catered for a hospital of a headquarters and 4 sections capable of expansion to a total of 10 sections.<sup>18</sup>

*The General Hospital for British troops* : In November 1941 the establishment for the general hospital British troops of 600 beds divided into 6 sections was authorised. To cater for hospitals of less than 6 sections the establishment was arranged on a sliding scale of a headquarters and 1-6 sections by making a proportionate reduction in the staff. The first hospital on this establishment was raised in December 1941, and its war establishment was finally published in March 1942. The salient features of the establishment were that officers-in-charge of the surgical and medical divisions in the rank of major were provided for hospitals of 4 sections and over ; hospitals of 2-5 sections were authorised 1 surgeon, 1 physician and 1 anaesthetist ; and in those of 6 sections 1 ophthalmologist and 1 otorhino-laryngologist were also authorised.

In July 1942, it was found necessary to expand one such general hospital for British troops to one headquarters and 8 sections. Provision for theatre sisters at the scale of 1 theatre sister for 500 or less and 2 theatre sisters for 501 beds or over was also made. These amendments were incorporated in the establishment in January 1943. In April 1943, with a view to economising in doctors, the assistant surgeons of the IMD(BC) were eliminated from the establishment and in lieu thereof a quartermaster was included for two sections and over. This

<sup>18</sup> F/Z-19036/H(M), F/3601/34/H(M)

establishment was cancelled in August 1944, as no hospital in India was functioning on it <sup>19</sup>

*The General Hospital (Combined)* This was a new type of hospital introduced in the early months of the war. Overseas operations had necessitated the formation of such a unit for external defence troops. The existing establishments of general hospitals for Indian and British troops were taken as a guide in the preparation of a new war establishment to cater for a hospital of a headquarters, with 5 Indian and 5 British sections. This establishment was issued in April 1940. In October 1940, the establishment for a general hospital (combined) of a headquarters with 1 Indian and 1 British section was also sanctioned. In March 1941, it was decided that the standard composition for a general hospital (combined) should be a headquarters and 6 sections (5 Indian and 1 British). Hospitals of this composition had already been raised on special establishment with certain modifications to the existing establishment. The war establishment was issued in April 1941. Thus there were 3 types of war establishments for general hospitals (combined) viz., headquarters with 5 Indian and 5 British sections, headquarters with 1 Indian and 1 British section, and headquarters with 5 Indian and 1 British sections. Future commitments envisaged a hospital consisting of a headquarters with 2 Indian and 2 British sections for which another war establishment was required. In order to obviate the necessity for so many different establishments it was proposed to replace these by a more elastic form of a single establishment on a sliding scale. Accordingly an establishment for a general hospital (combined) of a headquarters with 1 to 5 Indian and an equal number of British sections was issued in August 1941. Provision was also made in the establishment to enable both Indian and British wings to expand beyond 5 sections, if necessary. A registrar was authorised for hospitals of 4 sections and over, and officers in charge of medical and surgical divisions for those of 6 sections and over. In addition, specialists in medicine, anaesthetics and surgery were authorised.

In view of the acute shortage of nursing officers it became necessary to reduce the allotment of nurses in the Indian wing to about half the actual requirements. By January 1942, many members of the ANS(I) had volunteered for service overseas. They were posted to these hospitals in place of nursing officers.

Experience of the working of this establishment had indicated that the proportion of other ranks and tradesmen in the British wing and headquarters was inadequate. Consequently in November 1942, the war establishment was again revised. The revised scale departed completely from the previous method of calculating requirements and provided an establishment in three parts —

- (1) A headquarters suitable for 2-10 sections irrespective of proportion of Indian and British beds

- (ii) An Indian wing of 1-5 sections.
- (iii) A British wing of 1-5 sections.

In all cases provision was made for further expansion. For hospitals of 10 sections and over the officer commanding was a colonel and the officers in charge of surgical and medical divisions were lieut.-colonels. The other features of the establishment were the complete elimination of assistant surgeons IMD(BC), the introduction of a quartermaster for hospitals of 4 sections and over, and the provision for an increase in the number of the ANS(I) in the establishment when they were available. For hospitals of 6 sections and over an additional surgeon was provided in the establishment. This establishment was issued in January 1943, but was never adopted as immediately afterwards, in February 1943, further proposals for revision were made. At that time the general policy of the Medical Directorate was to form combined general hospitals when possible as these were more economical than separate general hospitals.

Nearly two years experience of the war establishment of a general hospital for Indian troops had brought to light many defects. The headquarters staff provided was the same for all hospitals from 4 to 10 sections and was found to be inadequate for large hospitals. The specialists allowed were too few in the large hospitals and there was no means of adjusting specialist requirements in any given situation within the establishment. The establishment covered only 4-10 sections and special establishments had to be prepared for smaller hospitals. In view of the above and the fact that after careful consideration it had been found possible in some cases to make certain reductions, a revised establishment was published in April 1943.

The sanction of the Government of India had existed in August 1942, for the registrar to be a major or captain in the hospitals of 2-4 sections and a lieut.-colonel or major in the hospitals of larger bed strength. This arrangement had not been incorporated when the revised establishment was drawn up and the latter was accordingly amended in July 1943. Provision was made for the registrar to be a medical or non-medical officer. A medical officer was provided in the rank of major only in hospitals with more than 3 sections. A non-medical registrar in the rank of major/captain could be provided for a hospital with 2-4 sections and in the rank of lieut.-colonel/major for hospitals of more than 4 sections. The appointment of a quartermaster was to be held by a lieutenant (quartermaster) of the Special List (Quartermasters) Indian Army, or an emergency commissioned officer holding a combatant commission wherever possible. In March 1944, it was decided to include the staff authorised for an X-ray unit *i.e.*, one radiologist, one radiographer, two batmen and one ward servant, in the establishment of a general hospital of 7 sections and over.<sup>20</sup>

<sup>20</sup> F/2273/H(M), F/Z-19038/H(M), F/3601/34/H(M)

*The Base General Hospital for Indian Troops*<sup>21</sup> Up to November 1942, large base hospitals for Indian troops were raised on the establishment for general hospitals for Indian troops. This establishment only extended up to 10 sections so that any hospital larger than this required special authority for additional staff. The specialist situation had then temporarily improved by the posting of additional specialists to these hospitals. A revised establishment was drawn up in October 1942. This was to be applied to the two proposed hospitals of 13 and 15 sections at Lucknow and to No 6 IBGH(IT), Karachi and possibly other large base hospitals. The establishment was designed to ensure adequate medical attention to war casualties and provide hospitals for treatment on the most modern lines consistently with the utmost economy in personnel. It was considered essential that the officer commanding should be a colonel and the two division commanders lieut.-colonels. This establishment was published in December 1942. Specialists were authorised as follows in the establishment —

	8-9 Sections	10-14 Sections	15 Sections and over
Physicians	1	1	2
Surgeons	2	3	3
Anæsthetists	1	2	2
Radiologist	1	1	1
Ophthalmologist	1	1	1
Oto-rhino laryngologist	1	1	1

A psychiatrist and/or a pathologist could be added to the establishment under orders of the GHQ.

Theatre sisters were authorised at the scale of 3 for hospitals of 8-9 sections and 5 for 10 sections and over. One nursing sister each for ophthalmology and oto rhino laryngology departments was also authorised.

In March 1944, provision was made for the attachment of a venereal diseases wing to the hospital and consequent reductions were made in the main establishment, which included 2 medical officers and 6 nursing sisters. In August 1944, an amendment was made regarding the formation of an ophthalmic centre in the hospital and consequent changes in the main establishment were made. In December 1944, provision was also made for additional personnel for a hospital which provided accommodation for mental patients. It had not generally been possible in the past, owing to the shortage of trained staff, to form a laboratory in a base general hospital and it had been necessary to rely for pathological work on local resources such as district or station laboratories or to attach a field laboratory to a base hospital. By April 1945, the position with regard to the availability of trained staff and equipment permitted the formation of laboratories in most base general hospitals. The general operational situation did not permit of field laboratories being used for this purpose.

<sup>21</sup> See also page 318



and district and station laboratories could no longer carry the burden. It was, therefore, decided to increase the existing establishment of the base hospitals, which already included 1 pathologist and 1 jemadar laboratory assistant by one more jemadar laboratory assistant and 2 laboratory trained ward servants for hospitals up to 9 sections and 3 for hospitals of 10 or more sections. This amendment was adopted in May 1945.<sup>22</sup>

*Base General Hospital for British Troops :* In the early stages base general hospitals for overseas casualties among British troops were raised on special establishments as and when required. In August 1941, it became necessary to provide a regular establishment for such hospitals. The proposed establishment was based on the United Kingdom establishment for a British general hospital of corresponding size modified to suit Indian conditions. In May 1942, following a request from the War Office, India agreed to provide hospital accommodation for a number of British casualties from overseas. India offered to provide equipment for the hospitals and to substitute certain categories of the British personnel of a general hospital with Indian personnel ; the balance, comprising only essential medical personnel, was to be sent from the United Kingdom. A revised war establishment for a British general hospital (10 sections) modified for India was prepared. The specialists authorised for the hospital were : 2 physicians , 3 surgeons , 1 radiologist , 1 pathologist, 1 ENT specialist, 1 ophthalmologist and 2 anaesthetists.

In the event of this hospital expanding beyond 10 sections the following additional staff was to be added for each section : 1 medical officer, 6 sisters, 6 nursing orderlies, RAMC, 4 ward servants, IHC, 4 batmen, 4 sweepers and 2 water carriers.

Subsequently, lack of accommodation for siting the hospitals forced a departure from the policy of having hospitals of only 10 sections and it was found necessary to cater for hospitals of varying sizes over 10 sections. A revised establishment was, therefore, proposed in February 1943, which catered for 10 sections, increasing up to 20 sections. All the increases proposed were proportionate. The opportunity was also taken of reducing the number of medical officers by 2 for 10 sections. The reduction was compensated for by the introduction of non-medical company officer for non-professional duties and by the introduction of an additional regimental sergeant major (hospital duties) who was to relieve the medical officer of certain routine work. The number of specialists was also reduced. This war establishment was published in April 1943. At the same time it was decided that company officers could not be provided for hospitals of less than 10 sections. In May 1943, a pathologist was authorised. In October 1943, in view of the volume and importance of the medical work another specialist in medicine was authorised for 20 sections replacing a general duty medical officer.

<sup>22</sup> F/Z-19036/H(M), F/3601/43/H(M)

Specialists were authorised as follows in the establishment 2 surgeons, 1 physician, 2 anaesthetists, 1 radiologist, 1 oto rhino-laryngologist, 1 ophthalmologist, 1 pathologist, 1 dermatologist (in hospital with a dermatological wing) and 1 psychiatrist (one per 100 psychiatric beds in a hospital with psychiatric wing)

In addition to the above, 1 specialist in surgery was added for 14 sections and another for 20 sections, 1 specialist in medicine for 15 sections and 2 for 20 sections<sup>23</sup>

#### THE CONVALESCENT DEPOTS

As early as 1940, DMS had stressed the need for convalescent camps and depots. But till June 1942, there were only two field convalescent depots, one for Indian and the other for British troops in India. Others were to be mobilised and opened as and when the situation demanded. Two base convalescent depots were functioning at Wellington and Poona for British troops. It was not intended at that time to open base convalescent depots for Indian troops.

The war establishments for convalescent depots both for Indian and British troops were revised in 1941. Each unit was to cater for 500 men. The establishment in the Indian and British convalescent depots, included 2 medical officers. These establishments were revised again in January 1943, when 1 medical officer and 1 sub-assistant surgeon IMD(IC) were reduced from the establishment of the unit for Indian troops, and 1 attached VCO was replaced by 1 jemadar stores section, IHC.

By November 1944, there had been frequent criticisms regarding these establishments. It was finally decided that a special form of convalescent depot, to be designated a base convalescent depot, should be formed to cater for 500 or 1,000 troops. This unit was to be used exclusively for the reception of cases from the base hospitals in India Command. The unit was to consist of a headquarters, a rehabilitation wing of 300 or 600 beds and a training wing of 200 or 400 beds. The officer commanding and the officer in charge of the rehabilitation wing of the unit were to be medical officers and the officer in charge of the training wing a combatant officer. The rehabilitation wing was to incorporate in its establishment personnel specially trained in rehabilitation whilst the aim in the training wing was to have personnel who would be able to give instruction in physical training, arms drill and organised games. These establishments were issued in January 1945, and the two existing 500 bed convalescent depots for Indian troops and the one existing 1,000 bed convalescent depot for British troops, which was on a special establishment sanctioned in 1942, were brought on to these establishments<sup>24</sup>.

Thirty three convalescent depots for Indian troops, 19 convalescent depots for British troops and 6 convalescent depots (com-

<sup>23</sup> F/Z-20638/H(M), F/2088/H(M) F/3601/35/H(M)

<sup>24</sup> F/Z-24207/H(M), F/3601/42/H(M), F/3602/32/H(M)

bined) were raised. Out of the 6 convalescent depots (combined) 1 was disbanded in 1944, and 1 in 1945. One convalescent depot for Indian troops and 1 convalescent depot for British troops were lost in Malaya. Three convalescent depots for Indian troops and 3 convalescent depots for British troops were converted into convalescent depots (combined), out of which 1 was re-converted into a convalescent depot for Indian troops. In addition, officers' convalescent depots were also formed at Poona, Mussorie, and Lebong. A convalescent depot for women was located at Mount Abu. The total beds provided in convalescent depots on 15 August 1945, was 16,500 for Indian troops and 9,050 for British troops which included 550 beds for officers and women.

#### THE AMBULANCE TRAINS

In order to provide facilities for the movement of casualties over the different gauges of Indian railways ambulance trains were constructed to run on broad, metre and narrow gauge railways. The carrying capacity of the broad gauge ambulance trains varied from 196 to 268. In the trains with a higher capacity approximately one-fifth of the accommodation could be added by installing emergency pull-out berths for use during the peak period of evacuation. These ambulance trains were of vestibuled stock, fitted with fans, lights and full sanitary and ablution facilities. Cupboards and lockers, full facilities for the preparation of standard and special diets, refrigerators, cold storage room, dispensary, and sleeping and dining accommodation for the permanent staff, were also provided. All these trains had two ward cars, each for 35 patients. These were mosquito-proofed and were air conditioned by means of a special twin-diesel engine plant housed in a separate car. The other coaches accommodated medical headquarters, dispensary, ration store and the medical staff. A brake van was also provided for carrying clothing, stores etc.

The war establishment for an ambulance train that was drawn up in the early stages included 2 medical officers, 2 nursing officers, 7 BORs, RAMC, 2 VCOs of the IMD, 8 IORs, 15 NCs(E) and 4 NCs (unenrolled) of the IHC. This establishment was revised twice, the last revision being in June 1944. The changes from the first establishment were an increase of 2 other ranks RAMC and 2 NCs(E) IAMC and a decrease of 2 VCOs, 4 other ranks and 4 NCs (unenrolled). One WO and 2 fitters of the Indian Electrical and Mechanical Engineers (IEME) were also attached when an air conditioning plant was carried.

Facilities were available in the train for the treatment of sick and wounded including transfusion equipment and equipment for minor surgery and for the administration of oxygen.

Ambulance trains in India were operated by civil railway employees, their movement being arranged by the Movement Control Authorities at the request of GHQ Evacuation and Distribution Staff.

The meter gauge ambulance trains had the same staff and facilities as the broad gauge ambulance trains but the carrying capacity was between 126 and 156. One of the trains could carry 192 patients and another 212.

One short improvised narrow gauge rake was provided for use on the Lohardigha-Chris line. This had a carrying capacity of 80 sitting and 24 lying cases and a reduced scale of medical personnel and equipment.<sup>25</sup>

The total number of ambulance trains raised was 33. These included 14 broad gauge, 13 meter gauge and 1 narrow gauge for service in India and 3 standard gauge trains for service overseas. Personnel alone were raised for the remaining 2 ambulance trains for Persia and Iraq Command and Ceylon. Out of the 33 units 3 were disbanded before August 1945.

*Headquarters Ambulance Train* Another formation complementary to the ambulance trains was the headquarters ambulance train to supervise the working of trains from the eastern front. The war establishment of this formation was drawn up in July 1944. The personnel authorised (divided in a headquarters and three sections) included the following —

*RAMC*

Quartermaster Officer Commanding	1
Other ranks	27

*IAMC*

Other ranks	14
NCs(E)	89

*Attached*

Captain to supervise in conditioning of trains	1
Dietician junior commander WAC(I)	1

*Independent Ward Coaches, Broad Gauge and Meter Gauge* These were single bogies and were self contained. Their carrying capacity varied from 16 to 25 casualties according to their design. There was accommodation for a small staff and facilities for cooking, and also for providing medical treatment on the journey. These coaches, used for the transport of a small number of casualties, who did not require extensive medical treatment on the journey, were attached to mail, passenger and express trains as required. They were found particularly useful for distributing cases such as maxillo-facial, orthopaedic, neuro-surgical to the special centres. The first independent ward coaches were raised in 1942, and the total number of these coaches raised during the war was 3 meter gauge and 12 broad gauge.

*Ambulance Coaches* These were four-wheeled vehicles with a carrying capacity of 14 lying cases. They were used for very short runs, such as from the dockside to the railway siding in cases where the radius was too small to permit the passage of an 8-wheeled vehicle.<sup>26</sup> The first ambulance coach was introduced in June 1945.

<sup>25</sup> F/Z 20546 F/3601/74/H(M)

<sup>26</sup> F/Z 601/75/H(M), C/142/H(M)

## THE HOSPITAL RIVER STEAMERS

These were small river steamers converted for the carriage of sick and wounded. Their tonnage was usually less than 2,000 tons. In view of their shallow draft they could operate on large rivers, creeks and in sheltered coastal waters. The type of vessel that had been converted could carry approximately 100 casualties. Accommodation was also provided for medical staff. The medical personnel and equipment and other facilities aboard were sufficient for a voyage of from 8 hours to 2-3 days, which was their usual run. The steamers were under the administrative control of the DMS and were operated by the Inland Water Transport.<sup>27</sup>

The medical staff authorised for the hospital river steamers was : 1 medical officer, 2 nurses, 1 other rank, RAMC, 1 havildar, 10 other ranks and 10 NCs(E), IAMC.

## THE HOSPITAL SHIPS

The military hospital ships were unarmed, were protected under the terms of International Conventions and were distinguished by the exterior being painted white with a horizontal band of green about a metre and half in breadth. They also hoisted their national flag, the white flag with a red cross provided by the Geneva Convention and, if they belonged to a neutral state, the national flag of the belligerent state under whose control they were placed. Hospital ships were used for the evacuation of casualties from the base ports in a theatre of operations to the military hospitals outside the theatre. They could also be employed for short or long periods as floating hospitals.

They had a complete medical staff including specialists. Their equipment included one or more operating theatres, X-ray room and plaster room. An air conditioned ward was usually provided in the hospital ships operating in tropical waters. The number of medical personnel and the number of casualties carried varied according to the size of the ship.<sup>28</sup> The ships under the control of India Command were *Karapara*, *Karoo*, *Talamba*, *Tairea* and *Wu-Sueh*. Their carrying capacity was 355, 400, 485, 483 and 250 patients respectively. *Talamba* was attacked and sunk by Axis bombers on 11/12 July 1943, whilst embarking casualties off Avola in Sicily.

## THE HOSPITAL CARRIERS

The hospital carriers were passenger steamers temporarily adapted for the conveyance of sick and wounded during the period when hospital ships were being fitted. They were subject to the same restrictions regarding the carriage of armed personnel and carried the same markings, staff and equipment as the hospital ships. In all three hospital carriers, *Nalcheria*, *Badora* and *Malchior Trueb* with a

<sup>27</sup> F/3601/79/H(M)<sup>28</sup> C/1/42/H(M)

carrying capacity of 120, 120 and 300 respectively, were commissioned during the war

#### THE AMBULANCE TRANSPORT

During the war only one Ambulance Transport, *Rajula*, with a carrying capacity of 300 to 350 was commissioned. It was used on the outward voyage for the transport of troops but was fitted for the homeward voyage, either partly or wholly, to carry the sick and wounded. It had no distinguishing marks to denote its function and could claim no protection. Facilities for the treatment of sick and wounded were not as adequate as on a hospital ship.<sup>29</sup>

#### THE TROOPING PARTIES

Trooping parties were raised for duty with the troops on a voyage. The establishment of a trooping party consisted of 1 medical officer, 5 British other ranks, RAMC, and 3 other ranks, IAMC. Twenty trooping parties were raised in January 1945. These were under the control of the Movements Control, QMG's Branch.<sup>30</sup>

#### THE MEDICAL STORES UNITS<sup>31</sup>

The field medical stores units included reserve base depot medical stores, base depot medical stores, depot medical stores, transit depot medical stores and sub-depot medical stores. Reserve base depot medical stores were two in number and were attached to No 3 Reserve Base, Panagarh, and No 4 Reserve Base, Avadi. Transit depot medical stores were used for the escorting, tracing and handling of stores from the base into the dock areas and their loading into the ships. Base depot medical stores were capable of maintaining one corps or 3 depot medical stores. The depot medical stores could maintain one division with associated non-divisional troops, and sub depot medical stores were designed for the maintenance of a brigade group. This last unit was not self contained but was attached to a CCS or a general hospital. Initially these store depots held a scale of equipment represented by one month supply at the maximum wastage. All field stores units were designed to hold, in addition to the initial scale, 3 months reserve of medical stores.

The number of stores units raised or re-organised from one type to another during the war was 54. These included 2 reserve base depot medical stores, 3 transit depot medical stores, 10 base depot medical stores, 14 sub depot medical stores and 25 depot medical stores. Three depot medical stores were converted into base depot medical stores. Two reserve base depot medical stores were re-organised as base depot medical stores. One depot medical stores was lost in Malaya. One depot medical stores and 1 transit depot medical stores were disbanded before August 1945.

<sup>29</sup> C/1/42/H(M)

<sup>30</sup> F/3601/90/H(M)

<sup>31</sup> See also page 347

establishment in July 1944 and 1 havildar clerical section was added. Provision was also made for the officer commanding to be non-medical. This became possible when suitably qualified non-medical officers were available who could efficiently carry out the malaria control duties. Transport was also increased and the motor cycle, which had not proved satisfactory on the slippery and muddy roads in the eastern front, was replaced by a jeep or a 15 cwt. truck. All these changes were introduced in the establishment issued in April 1943. The number of anti-malaria units required and allotted to an area was calculated on a regional basis and not on the military formations. The method employed was to survey a representative base or L of C area and to assess the required number of units. The total requirements of a given region were then worked out from the information so obtained. The normal allotment in a corps was 6 units—3 per corps and 1 per division.<sup>33</sup> The total number of anti-malaria units raised was 122, out of which 2 were lost in Malaya and 3 were disbanded before August 1945.<sup>34</sup>

#### THE DENTAL UNITS

There were three types of dental unit, *viz.*, the dental unit for Indian troops, dental unit for British troops and the dental mechanic unit.

The establishment authorised for a dental unit for Indian and British troops was :—

				<i>Indian unit</i>	<i>British unit</i>
<i>IMS (Dental Branch) Officer</i>	..	.		1	...
<i>ADC</i>					
Officer	.	...	...	...	1
Orderly	...	..	...	...	1
<i>IHC</i>					
Ambulance section sepoy		..		2	1
Nursing section sepoy	...	...		1	...
NCs(E)	...	..	..	2	3
Total				6	6

The war establishment of a dental mechanic unit included 1 dental mechanic, ADC and 2 NCs(E) of the IHC.<sup>35</sup>

The total number of units raised in the war was 84 dental units (51 for Indian troops, and 33 for British troops) and 29 dental mechanic units.

<sup>33</sup> F/Z/20585/H(M), F/3601/49/H(M), F/3601/55/H(M)

<sup>34</sup> See also Volume on *Prevention of Diseases, Malaria Control and Nutrition*

<sup>35</sup> F/3601/39/H(M), F/3601/40/H(M) See also page 57

## THE X-RAY UNIT OR MOBILE X-RAY UNITS

The X-ray or mobile X-ray unit was attached to a general hospital or a CCS and was under the orders and administrative control of the officer commanding the unit to which it was attached. The staff authorised was 1 medical officer, 1 VCO radiographer, and 1 ward servant. The mobile X-ray unit, in addition, had a 3 ton general service lorry for X-ray plant, and a 30 cwt general service lorry for a generating set and 3 drivers of the RIASC to make the unit mobile. One mobile X-ray unit and 2 X-ray units were allotted to a division. By March 1945, each CCS and general hospital had an X-ray unit.

The total number of X-ray units raised during the war was 97. This included 60 X-ray units, 34 mobile X-ray units and 3 mobile servicing units, which were formed from the existing 3 mobile X-ray units. Three X-ray units were lost in Malaya and 7 were disbanded before August 1945.

## THE OPHTHALMOLOGICAL UNITS

The establishment of the unit which was drawn up in April 1941, included 1 specialist in ophthalmology, 1 nursing orderly RAMC, 1 nursing sepoy and 1 ambulance section sepoy of the IHC.<sup>36</sup> The normal allotment was 1 ophthalmological unit per division. The first unit was raised on 18 July 1941 and the total number raised was 29.

## THE SURGICAL UNITS (ENT)

Before June 1941, specialists in ENT diseases were posted to the general hospitals when required. The establishment for the surgical unit (ENT) was drawn up in July 1941, and included an oto-rhino laryngologist, 1 nursing orderly, RAMC, 1 nursing section sepoy, 1 ambulance section sepoy and 1 ward servant of the IHC. One surgical unit (ENT) was allotted a division.<sup>37</sup> The first unit was formed on 18 July 1941 and the total number raised was 20.

## THE MOBILE SURGICAL UNITS

Reports from the Middle East had shown that when a large number of casualties were received one surgical specialist, as was then authorised for a general hospital or a CCS, was inadequate to cope with the work. Often two additional surgeons were required. It was suggested that the most economical way of supplying additional surgical teams was not by increasing the establishment of general hospitals and CCSs but by the formation of self contained mobile surgical units each comprising a surgical team. As mobile

<sup>36</sup> A/7/3/H(M)<sup>37</sup> F/Z 24523/H(M)



units they could under certain circumstances be moved as far forward as the MDS to provide, if the military situation permitted, skilled surgical treatment. Their normal use, however, was to supplement the existing surgical facilities in the general hospitals and CCSs. The establishment for such a unit was drawn up in June 1941, and included 1 surgeon, 1 anæsthetist, 1 nursing sister, 1 corporal and 1 private, operating room attendants of the RAMC, 1 subedar IMD, 2 nursing section sepoy, 4 ambulance section sepoy, and 4 NCs(E) of the IHC. The object of the unit was to bring surgical aid to the patient rather than transport the patient back to a surgeon rendered static by the bulk and complexity of his equipment. The services of a mobile surgical unit ensured that the interval between the receipt of a wound and skilled surgical treatment was minimised. This not only helped towards speeding up recovery, but also lessened the period of inevitable discomfort for the wounded. In October 1943, a conference of surgeons was held at GHQ to review the establishment of the unit. These officers had valuable experience with this type of unit in the campaign in the eastern theatre. As a result, a new establishment, designed to afford greater mobility to the unit and also to raise the standard of treatment, was drawn up. The main changes in the new establishment were the replacement of the subedar by a medical officer, an increase in the number of BORs by 2 and the deletion of the nursing sister.

Mobile surgical units were also attached to field ambulances (parachute) on the scale of 2 units per field ambulance. When attached as such all personnel were operational parachutists.

The mobile surgical unit was a corps unit and was allotted on the basis of 2 per division. The normal role of the unit as indicated above was to be attached to the forward field ambulance or, on occasion, to a CCS.<sup>38</sup> Surgical teams from the unit could also be sent by air if required.

Twenty-four mobile surgical units and 6 mobile surgical units (parachute) were raised. The mobile surgical units (parachute) were organised from the existing mobile surgical units.

#### THE TRANSFUSION UNITS

To ensure that blood and blood products were available for administration to the wounded at the most advanced medical units, special field transfusion units, equipped with mobile refrigerators and with a staff expert in transfusion work were employed. Several of these units worked in Assam and Arakan and had been instrumental in saving many lives. Transfusion units included the base transfusion unit, the advanced base transfusion unit and the blood storage unit. The war establishment of a base transfusion unit was drawn up in 1942. The staff authorised was 1 major, who was also adviser

<sup>38</sup> F/Z-24059/H(M), F/3601/76/H(M)

on resuscitation and blood transfusion, 1 medical officer, 1 sergeant RAMC, 6 other ranks, and 6 NCs(E) of the IHC, and 3 drivers of the RIASC. The transport authorised was 1 15 cwt general service truck.

The war establishment for an advanced base transfusion unit was prepared in 1943. The unit was attached to a general hospital for all purposes. The establishment authorised was 2 medical officers, 2 other ranks RAMC, 4 other ranks IAMC and 3 drivers RIASC. The transport authorised was 1 15 cwt general service truck, 1 3 ton lorry fitted with refrigerator. This establishment was revised in September 1944, when 5 other ranks RAMC, 4 other ranks, and 1 NC(E) IAMC, 3 other ranks RIASC and 1 rank fitter IEME were added to the establishment. The increase in transport was 1 15 cwt general service truck, 1 5 cwt car and trailer and 1 3 ton lorry fitted with refrigerator.

The establishment for a blood storage unit was drawn up in June 1943. The unit was designed to be attached to a base transfusion unit. The staff authorised was 2 medical officers, 2 other ranks RAMC, 8 privates WAC(I), and 4 other ranks IAMC. This establishment was also increased by 2 officers, 2 other ranks, IAMC, 5 other ranks WAC(I) and 5 NCs(E) IAMC. The existing units were reorganised on the revised establishment with effect from 1 December 1944.<sup>39</sup>

The number of transfusion units raised was 1 base transfusion unit, 3 advanced base transfusion units and 2 blood storage units.

#### THE MAXILLO FACIAL SURGICAL UNITS

As early as November 1941, proposals were made for the provision of maxillo facial surgical teams. But it was not till March 1943, that a war establishment for an Indian unit of this type was sanctioned. This unit was to be attached to a general hospital for all purposes. The establishment authorised in April 1943, was as follows: 1 officer commanding (surgical specialist), 1 surgeon, 1 anaesthetist, 1 nursing officer, 1 corporal, operating room assistant, RAMC, 7 other ranks, IAMC, and 4 NCs(E) IAMC.

Attached dental personnel in the unit were 2 maxillo facial dental surgeons, 1 staff sergeant and 1 sergeant ADC dental mechanic and 1 corporal clerk orderly ADC. Two maxillo facial units were raised during the war.

#### THE MALARIA FIELD LABORATORY

Malaria research in the field in India had been carried out during 1943-44 by No 1 Malaria Field Laboratory. In March

<sup>39</sup> F/3601/31/II(V) F/3601/85/II(V)

1945, this unit was transferred to SEAC. Meanwhile a programme of malaria research, designed to study the methods of reducing the incidence of malaria, had been arranged for India Command. This programme included research and trials on the application of DDT by various methods and with different types of equipment and research in conjunction with the Chemical Warfare Branch on the application of DDT by smoke from grenades, mortars and bombs. The results of air spraying of DDT, the application of new mosquito repellents and the use of fish net clothing impregnated with various repellents had to be investigated. A new malaria field laboratory for India Command was, therefore, required. The war establishment for the unit was sanctioned in June 1945. The unit consisted of a headquarters and 2 sections capable of functioning independently when detached for duty in isolated areas. The staff authorised was as follows<sup>40</sup> : 1 officer commanding (lieut.-colonel), 2 majors, specialists in malariology, 1 major, entomologist, 4 jemadars, laboratory assistants, IAMC, 17 other ranks, IAMC, 7 NCs(E), IAMC and 4 drivers, RIASC.

One malaria field laboratory was raised on this establishment on 17 July 1945.

#### OTHER RESEARCH UNITS

In addition to the units mentioned above special research units were raised.<sup>41</sup> These units included : the malaria research unit (prevention), the malaria research unit (clinical), the base typhus research team, the field typhus research team, the penicillin research team, the anaemia investigation team, the parasitological research team, the protozoology team, the neuro-pathological research team, the sprue investigation team, the marasmus investigation team and the biochemical research team. Other miscellaneous units raised were 4 venereal diseases centres (war role), 4 reception centres, and 1 psychiatric centre.

#### THE ALLOCATION OF UNITS

The head of the medical administration in an army or corps was the DDMS and in a division the ADMS. If the operational command was large and important like South East Asia Command a DMS was appointed. DDsMS and ADsMS were attached to the AG's Branch of the formation concerned. They were the technical advisers to the commander of the formation on all matters affecting the health of the troops and were responsible for the administration and command of the medical units in the formation. They were required frequently to visit medical units and detachments to ensure that a high standard of medical service was maintained and also to

<sup>40</sup> F/3601/130/H(M)

<sup>41</sup> Details regarding these research units would be found in Volume on *Medicine, Surgery and Pathology*

visit non-medical units to observe their health and sanitation. The additional medical staff in a corps was usually an ADMS and an ADH, and in a division a DADMS.

The number of units required to accompany a force, irrespective of its role, and their method of calculation was as follows —

*Field ambulances* One per brigade or armoured brigade

*Field hygiene sections* One per division or armoured division, one sub section per brigade or armoured brigade. When a brigade group was given an independent role a modified headquarters and one sub section of a field hygiene section were allotted for administrative purposes.

*General hospitals* The number of beds provided was at the scale of 8 per cent for Indian and 10 per cent for British troops. Experience in the war showed that the most economical and manageable unit was a hospital of 10 sections (each section with 100 beds) for Indian troops, and a combined hospital of 6 sections (5 Indian and 1 British) for Indian and British troops. The size of headquarters varied according to the number of beds in the hospital.

The inclusion of the following units in an order of battle was largely dependent on the role of the force —

*CCS* Normal scale 1 per division. A CCS could also be allotted to a smaller force e.g. a brigade group in an independent role.

*Staging sections* According to the length and type of the L of C.

*Convalescent depots* According to the accepted plan for dealing with convalescents in a particular theatre.

*Anti malaria units* According to the theatre in which the force was likely to operate.

*Depot medical stores* Normally one depot per division.

*X ray units and mobile X ray units* Normally 1 per general hospital and CCS. Owing to the lack of technical personnel and equipment actual allotment was according to their availability.

*Hospital ships* According to the general plan for the evacuation of casualties.

Composition of a standard division for 1942 overseas commitment was as follows —<sup>42</sup>

<sup>42</sup> F/Z 1028/H(VI)

<i>Unit</i>	<i>Divisional troops</i>		<i>Non-divisional and lines of communica- tion troops per infantry and armoured division</i>	<i>Force and base units</i>
	<i>Higher scale</i>	<i>Armoured division</i>		
Field ambulances . .	3			
Field hygiene sections	1	.	2	...
Depot medical stores .		..	1	
X-ray units .	..	..	2	.
Mobile X-ray unit	.	..	1	..
Field laboratories ..	.	..	3	.
Convalescent depots .	.		3	.
Combined general hospitals			3	..
Indian general hospital	.	.	1	.
British general hospital (600 beds) .		.	1*	.
Anti-malaria unit ..	..		1	..
Hospital ships .	.	.	...	4
Ambulance trains .		.	.	2
Casualty clearing station . .			1	..
Hospital barge section .	.	.	1	
Staging sections .		..	4	..
Armoured brigade field ambulances .		2	..	
Armoured division support group field ambulance		1	...	.
Armoured division field hygiene section	.	1	..	.

\*From the United Kingdom

The allotment of field medical units in March 1944, was as follows :—<sup>43</sup>

*Divisional Troops*

Field ambulances	3
Field hygiene section	1

*Non-Divisional Units*

Field hygiene sections	2
Casualty clearing station	1
Mobile surgical unit	1
Mobile X-ray unit .	1
General hospitals ..	4*
X-ray units ..	2
Field laboratories .	3

\*Total beds : 2,400 for Indian troops and 700 for British troops.

Surgical unit (ENT)	1
Ophthalmological unit	1
Dental units	5
Dental mechanic units	2
Convalescent depots	3
Staging sections (combined)	3
Depot medical stores	1

*Corps and Army Troops*

Base depot medical stores	}	One per corps
Reserve base depot medical stores		
Transit depot medical stores		
Sub depot medical stores		On an 'as
Casualty clearing stations		required' basis
Anti malaria units		
Malaria forward treatment units		

The basic composition of units in a division remained unchanged except that the field ambulances were re-designated as field ambulances higher scale or lower scale according to the scale of transport provided in the division

In August 1944, the non divisional units in a corps were allotted as follows —<sup>44</sup>

*Light field ambulance* One It was considered that the light field ambulance was the most suitable unit to be employed as the corps field ambulance. It was a large unit, well equipped, flexible and mobile, thus forming a complement to the standard division field ambulances

*CCSs* Four One per division and one per corps

*MFTUs* Four One per division and one per corps

*Mobile surgical units* Six Two per division

*Field transfusion units* Three One per division

*Mobile X ray units* Four One per casualty clearing station

*Anti malaria units* Six One per division and three per corps

*Bearer companies* Four One per division and one per corps

*Dental units* (British troops) Five One per division and two per corps

*Dental units* (Indian troops) Four One per division and one per corps

*Dental mechanic units* Five One per dental unit British troops

*Field hygiene sections* Two per corps

*Staging sections* Six One per division and three per corps

*Sub depot medical stores* Three One per division

*Mobile field laboratory* One One per corps

<sup>44</sup> F/6401/3/H(M) F/6301/42/H(M) I/Z 24028/H(M)

In January 1945, the composition of the corps troops was changed as follows :—<sup>45</sup>

- (i) One mobile surgical unit was attached to each CCS in the corps. Their number could be increased to six units, instead of two per division, in the corps.
- (ii) The allotment of bearer companies was reduced from four to three.
- (iii) Dental units for Indian troops were increased from one per division to two per division ; the total allotment being increased from four to seven.

#### THE ARMING OF THE PERSONNEL OF THE MEDICAL UNITS

Prior to September 1942, only officers and attached RIASC personnel of the medical units were armed. In the operations in the eastern theatre, particularly in a country where attack from guerillas and local hostile elements could be expected, it was feared that medical units could expect little or no consideration from them. No fighting units were available for allotment to medical units for protection and consequently they had themselves to be responsible for their own protection. The arming of medical units for self defence was expressly permitted in the Geneva Convention, Article 8, which reads :—

“ The following conditions are not considered to be of such a nature as to deprive a medical formation or establishment of the protection guaranteed in Article 6 .—

- (i) That the personnel of the formation or establishment is armed and that they use the arms in their own defence or in that of the sick and wounded in charge etc.”

In September 1942, the following scale of arms was decided upon for medical units :—

Field ambulance—a pool of fifty rifles and six machine carbines.

Field hygiene section—fifteen rifles.

Bearer unit—nine rifles.

The protection of CCSs and staging sections was to be considered at a later date.

Weapon training in the units concerned could best be achieved by the attachment of suitable NCOs from infantry battalions. As a long term policy it was recommended that weapon training and musketry be included in the syllabus of training of ambulance section personnel in the IHC battalions, RAMC depot, and training field ambulances.<sup>46</sup>

A detailed scrutiny of the weapons to be provided for a particular unit was left to the General Staff. In 1944, medical unit personnel were armed generally as follows .—

With pistols . Officer, VCOs and British WOs.

With rifles Other ranks, attached RIASC *etc.*

<sup>45</sup> F/6401/3/H(M).

<sup>46</sup> F/2222/H(M).

The units where a departure from this scale was made were as follows —

<i>Unit</i>	<i>Armed with pistols</i>	<i>Armed with stens</i>	<i>Armed with rifles</i>
Field ambulances	Officers, VCOs and motor cyclists (Fifty rifles and six stens were provided in addition in field ambulances where necessary)	Attached VCOs and first drivers of vehicles	Remaining attached personnel
Light field hygiene section	Officer and VCO		Attached personnel
Field hygiene section	Officer	WO, VCO, drivers of 'B' vehicles	Remaining combatants
Field ambulance (parachutes)	Officers, VCOs and other ranks	Two batmen in headquarters and one per section	Attached RIASC and ambulance section IHC personnel in headquarters
Casualty clearing stations	Officers, VCOs and motor cyclists	Attached VCOs, clerks and first drivers of vehicles	Remaining attached ranks
Anti malaria unit	Officer	VCO and drivers	
Bearer company	Officer	VCOs and five attached drivers	Havildars, naiks, lance naiks ambulance section IHC, batmen and spare drivers
Field hospitals	Officers and VCOs	First drivers	Remaining attached personnel
Convalescent depot	Officers		Other ranks excluding medical
Base transfusion units	Officers	Drivers	
Medical stores transit depot	Officer and VCO	Drivers	
Reserve base depot medical stores	Officers	WO, VCOs and first drivers	Remaining drivers
Staging section	Officer and VCO		



## CHAPTER XIII

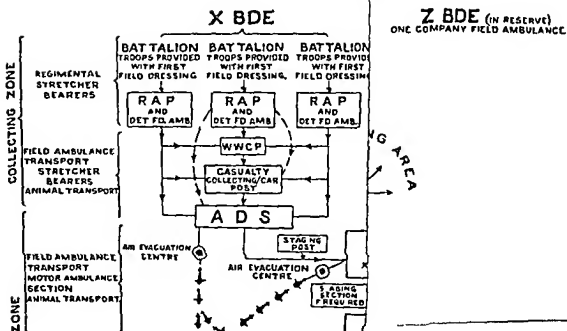
# Reception and Distribution of Casualties

### THE EVACUATION OF CASUALTIES BEFORE WORLD WAR II

It was in World War I that the evacuation of casualties by mechanical transport was first adopted and developed. Before that, and even after the utilisation of motor ambulances, hand-carriage by stretcher bearers continued to be the chief means of transport. Sixteen regimental stretcher bearers were provided in the war establishment of a battalion, and during active operations were allotted to the companies. An additional sixteen were also placed at the disposal of the battalion medical officer whenever casualties were expected. The casualties collected by them were brought to RAP where the unit medical officer was posted in close proximity to the battalion headquarters. During an advance where the distance from the line to the RAP became longer, the wounded were collected in groups before being taken to the RAP. Subsequent evacuation from the RAP to the ADS was by the field ambulances attached to the division. The three field ambulances could muster 324 stretcher bearers, but in the case of offensive operations up to a total of 600 men could be placed at the disposal of the ADMS to assist in evacuation. Walking cases were expected to make their own way back and were catered for in a special sub section of the field ambulance called a divisional collecting post. From the ADS to the MDS, evacuation was by means of field ambulance transport, which in 1914 consisted of ten horse drawn ambulance wagons. These were later replaced by motor ambulance cars though three horse drawn carriages were retained for use on roads unsuitable for motor traffic. Walking cases were evacuated by lorries, and often these were diverted to a walking wounded collecting station, attached to a corps. The next link in the chain was from the MDS to the CCS. This was to be the responsibility of the supply lorries returning empty, which would often dump their supplies on the road-side and pick up the wounded.

But the arrangement was extremely defective and broke down in the battle of Mons for example. Occasionally this system caused congestion of casualties and the blocking of transport at refilling points. The mode of transport was both inconvenient for the wounded and unrelated to the needs of casualty evacuation. The discomfort caused and the delay involved in evacuation led to the formation of No. 1 Motor Ambulance Convoy (MAC) in September 1914, with fifty motor ambulance cars, three lorries, two motor cars and one motor cycle. Soon other convoys were formed, and at this stage motor ambulance cars were generally used for evacuation. But in times of pressure the employment of empty supply lorries had still to be resorted to. However, the principle of evacuating casualties in specially equipped and medically controlled motor transport was accepted early in World War I. In addition, light railways

# DIAGRAM COLLECTION, EVACUATION





and buses were also employed to carry the casualties from the MDS to the CCS. The next stage was to transport the casualties from the CCS to the advanced base or base hospitals. This was carried out by means of ambulance trains, improvised ambulance trains, MACs and ambulance barges. In France forty one such trains were eventually provided, but owing to their limited carrying capacity (162 to 366 lying patients or 300 to 400 other patients) the target of one train for every division could not be maintained. Occasionally empty supply trains, or improvised passenger trains were also used for the purpose. The ambulance trains, properly equipped and staffed, were under the charge of an ADMS (ambulance trains), who was in direct contact with the Directorate of Transportation. Specially equipped barges were used largely in France, each fitted with 30 hospital beds, and accommodation for the stores, the kitchen, and the staff. These were used for the carriage of the seriously injured, such as head and chest wounds and gunshot fractures of the thigh where, smooth movement was required.

In the theatres of war in Africa or in the Middle East, the terrain and the paucity of mechanical transport made resort to other modes of transportation inevitable. In the Sinai Peninsula in 1915, the country being mountainous desert, use had to be made of camel cacolets, camel litters, sand carts drawn by mules, and sand sledges, besides the motor ambulance cars, trains or barges where available. In Macedonia also camels and mules were largely used, while in Mesopotamia and East Africa, river craft and motor ambulances supplemented by hand carriage or camel and mule transport were employed. But it was in these theatres of war with their great distances that the value of aircraft for the evacuation of casualties was realised. For the first time such a demand was made by the medical services during the operations in Upper Mesopotamia for flying urgent cases from the fighting areas to Baghdad. But unfortunately no aircraft could be released for this purpose. Hospital ships had also been used for evacuation by sea and a system of beach CCSs had been developed. Thus by the end of World War I, use of mechanical transport, motor ambulance cars, ambulance trains and ambulance barges had come to stay and in the undeveloped desert areas camel and mule transports had also been improvised. The experience of that war had also led to the organisation of a network of casualty receiving, clearing and staging centres between the forward areas and the base hospitals. But the use of aircraft for the evacuation of casualties had not been resorted to, though the idea had not failed to occur to some. Soon after the war, the system of air evacuation was advocated by Major T. B. Layton in 1922, at a meeting of the Royal Society of Medicine, while Lieut. Colonel T. L. Rhoads had, in 1924, pleaded for the use of aircraft ambulances for the replacement of urgent medical supplies. Also in Canada the use of the Noorduyn Norseman aircraft (C 64) equipped with skis for use in snow had been developed.

During the inter war years, developments in the systems of evacuation had occurred in the North West Frontier Campaigns

where transportation by vehicles was impracticable. The Army Bearer Corps, formed in 1902, was the mainstay for hand carriage, as they brought the casualties from the battalion RAP to the ADS of the field ambulance or to other points on the lines of communication. The use of camel *Khajawas* and mechanical transport had been general in those regions. Another innovation which was developed in the earlier frontier campaigns was that of the Indian staging sections (ISS) for providing accommodation and care of the casualties on the long journey to the base. For this purpose fifty-bedded stationary hospitals on the lines of communication were modified to make them more mobile and less unwieldy and so more useful for the new purpose.

Air evacuation had also been resorted to in the inter-war period. The first use of aircraft was made in January 1920, in Mesopotamia when a single patient was evacuated by air from Abu Kemal to Baghdad. Later in Kurdistan mountains 198 casualties were thus evacuated to Kirkuk and thence to Baghdad. The experience gained there proved the value of rapid evacuation to the base in such urgent cases as abdominal, head or chest injuries. At the same time the limitations and drawbacks of air evacuation were also realised, and the importance of the control of aircraft being vested in the medical authorities responsible for the movement of casualties was also appreciated. In India this new experiment had its first general trial in 1935, when casualties had to be flown from the Quetta earthquake zone. Later in 1937, in the Waziristan operations, 157 casualties were evacuated by air. In the twenty years between the two wars, the recorded number of casualties evacuated in Iraq, Palestine and India by air is approximately 2,806.

Thus when World War II broke out the principle of rapid evacuation of casualties from the forward areas to the hospitals or treatment centres in the rear had been well established. The modes of transport also had come to be fully re-organised. Hand carriage by stretcher bearers to improvised animal transport, ambulance cars, trains and barges or other river craft and hospital ships and even aircraft, had been used and were the accepted vehicles of transport. A system of graded stations between the forward areas and the base hospitals had also been developed. These were to be further developed and new improvisations resorted to in the war. It was realised that the rapid evacuation of casualties play an important role in maintaining morale and winning the war.

## WORLD WAR II

### THE EVACUATION OF CASUALTIES DURING THE RETREAT FROM BURMA

Japanese forces invaded Southern Burma in the early weeks of 1942. From the fighting line casualties were evacuated by ambulance trains and cars to Prome. Limited hospital shipping was used for the evacuation of casualties from the hospitals in Rangoon to India, Medical units were withdrawn along the axes of withdrawal, which

were the Pegu, Toungoo, Mandalay road and railway, and the valley of the Irrawaddy. Hospital river steamers evacuated casualties from Rangoon to Prome and later from Prome and the oil belt to Mandalay, when these areas were abandoned. But soon afterwards communications were disrupted, and organised casualty evacuation became almost impossible. Formations in retreat northwards frequently had to carry their sick with them. Ambulance trains did invaluable work. The crews had to be armed for protection against looters, they frequently had to do their own signal and point shifting and were called upon to render first aid at bombed wayside stations. One train evacuated over 1,000 casualties from the forward areas to Prome. On at least two occasions it operated as far forward as the MDS of the field ambulance near the Salween River, when it was in great danger of being cut off by the bombing of the bridges. One train was derailed but was rescued and worked up to Mandalay before the Japanese over-ran it. Ambulance cars were machine gunned from the air, but ambulance trains seemed to have immunity from these attacks.

The first air evacuation of casualties was from Magwe, in the oil belt, to India, but the number was small. A further evacuation by air was made from Shwebo in Central Burma when the retreat from this area became necessary. The majority of sick and wounded were, however, moved by ambulance train and hospital river steamer from the hospital areas at Maymyo and Mandalay to Myitkina in the extreme north. From Myitkina further retreat by land routes was impossible, but by that time sufficient aircraft were available to evacuate the casualties from Myitkina to the bases in north-eastern India. In ten days during April 1942, ten C 47 Dakota aircraft evacuated 1,900 sick troops and civilians to the hospitals in Assam. This was the first moderately large scale evacuation of casualties by air, and it was accomplished across the mountainous barrier which separates Northern Burma from the Brahmaputra valley in India. The peaks of these ranges are often over 10,000 feet high.

Streams of refugees and the remnants of the defeated forces in Burma trekked into North eastern India by way of the Kabaw and Hukawng Valley tracks. These valleys are highly malarious and the sickness and death rates from malaria, dysentery, cholera, etc were high. Hospital treatment there was difficult. An improvised ambulance train distributed the sick to the hospitals in Manipur Road, Shillong and other areas in Assam. The remainder were evacuated into the interior of India to hospital centres as remote as Calcutta, Lucknow, etc. Evacuation was by an improvised ambulance train to Gauhati, by hospital River steamer for two days down the Brahmaputra river to Sirajganj, and again by ambulance train for one or two days to Calcutta or Lucknow. The flow of sick refugees from Burma was quickly followed by the monsoon and this in turn caused a great increase in sickness, especially malaria, amongst the troops stationed in Assam. Additional improvised ambulance trains

were made available to cope with the rate of evacuation and steps were taken to provide at a later date corridorred ambulance trains, properly equipped with staff quarters and kitchen cars.

#### THE EVACUATION OF CASUALTIES DURING THE FIRST ARAKAN CAMPAIGN

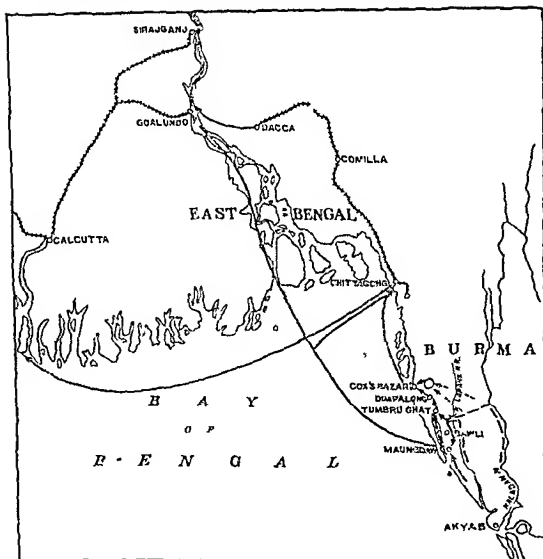
After the end of the 1942 monsoon and in the early months of 1943, offensive action was begun by the Allied troops in the southern sector in the form of an advance into Arakan. A divisional attack aiming at the capture of Akyab was launched from the Eastern Bengal base and port of Chittagong. The problems of casualty evacuation in this tract of country were tremendous. Roads, where they existed, were atrocious, and aircraft were not available. Evacuation by river, *chaung*, creek and sea, was the most comfortable means of transport. But even where it was practicable it was extremely slow and the number of suitable craft available was inadequate. The main feature of this evacuation therefore was improvisation. A fleet of wooden barge-like Akyab sloops was obtained, together with smaller country craft of the sampan type. The former were used on the larger rivers and the latter on the smaller rivers and *chaungs*. Although slow and frequently dependent on tide, these craft were a great improvement on evacuation by ambulance cars along the dusty unmetalled Arakan roads. The improvised Akyab sloops were replaced first of all by three creek steamers, and later by large metal flats capable of carrying up to 200 patients. The latter were stifling in the heat of the day, but no alternative was available, and the sickness rate was so great, especially from malaria and dysentery, that the larger craft had to be used.

For the brigade advancing along the Naf River and the coastal belt at the foot of the Mayu range of hills, evacuation by water transport was always practicable, and the small and large river ambulance craft concentrated all the sick and wounded at the head of the Naf River estuary, from whence they could be conveyed by ambulance cars to the forward hospital at Doapalong.

For the brigade advancing along the Kalapanzin River valley across the Goppe Pass in the Mayu range the only practicable means of evacuation was by mules of the field ambulance troops, and hand carriage by Indian bearer companies and local villagers. From the foot of the pass it was possible to evacuate by ambulance cars to the forward hospital at Doapalong.

Even more difficult from the point of view of casualty evacuation was the situation of a column which crossed yet another range of hills from the Kalapanzin valley into the Kaladan River valley. For these troops river evacuation in small local country craft was occasionally possible, but the bulk of the evacuation had to be by mule and hand carriage. The local inhabitants of this remote valley, the Mugs, were experts at the improvisation of bamboo stretchers and slings, and carried patients with great care and skill over long distances. At Kyauktaw and Apaukwa this column improvised two

DIAGRAM OF CASUALTY EVACUATION, ARAKAN—BURMA 1942-44





light airstrips, and two Lysander aircraft, the only ones available for casualty evacuation in Arakan at that time, evacuated a small number of the more seriously sick and wounded, until one of the aircraft crashed and the Japanese captured the strips. Casualties from Kyauktaw in the Kaladan valley evacuated by mules took four days to reach Taung Bazaar in the Kalapanzin valley, and a further two days to reach the foot of the Goppe Pass, where ambulance cars took them along bumpy tracks to the forward hospital at Doapalong.

Under these difficulties of evacuation, where distance came to be measured by hours of travel rather than in miles, the idea of siting small medical units or detachments along the line of evacuation for the purpose of 'staging' the casualties overnight was developed. These units provided rest, refreshment, medical attention and cover at night. In a similar way, and again owing to the nature of the country and the means of communication, it was frequently necessary to stage the casualties in the hospitals sited at suitable distances along the line of evacuation from the forward hospitals to the main base hospitals, sited in India. As many casualties as possible were held in the hospitals at Cox's Bazaar, Chittagong and Dacca. The choice of Dacca, as a hospital centre for operations along the eastern frontier of India was mainly for logistical reasons to reduce long distance evacuation to Northern and Southern India. It was centrally situated for the Assam and the Arakan fronts. Good accommodation was available. It could be reached by river both from the mouth of the Brahmaputra in the south, and from Assam in the north. The metre gauge railway system connected Dacca with Chittagong in the extreme south-east of Bengal, and *via* the hill section with Manipur Road and North-east Assam. An excellent airfield was available at a short distance from the hospital centre, and it was connected by a good road. Climatically, Dacca was not by any means ideal for a hospital base. However, Shillong, the only area in East Bengal and Assam with a cool climate suitable for such a hospital base, was completely inaccessible, except by long and difficult road journeys. Despite these hospital areas many casualties had still to be evacuated to the bases in Northern and Southern India. These patients were often obliged to stage in probably four hospitals and possibly numerous other field units, travel in at least five different forms of transport, cover perhaps 1,000 miles, and take from two to four weeks or longer on the move.

The incidence of malaria during this campaign reached great proportions. Medical units and the evacuation system were thereby considerably strained. In the earlier stages ISSs were grouped together as holding units for short term malaria cases which could not be taken into general hospitals and CCSs owing to their numbers. From this grouping of ISSs to hold short term malaria cases developed the malaria forward treatment units. These units were used to hold, treat and rehabilitate up to 600 such malaria patients as were expected to recover within a period of three weeks.



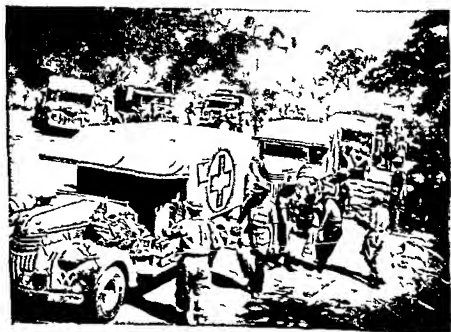
CASUALTIES BEING EVACUATED ON MULES



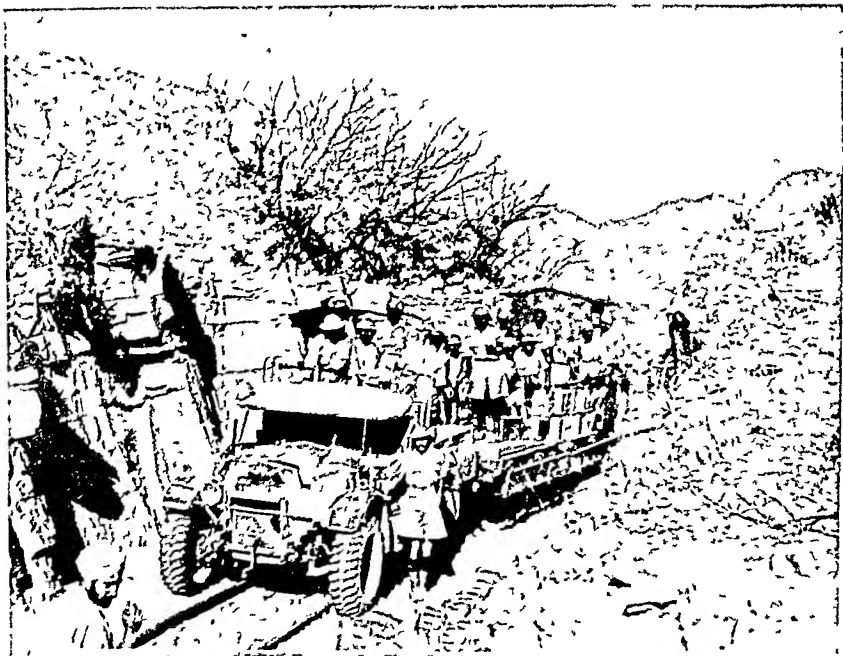
PATIENTS CARRIED ON CAMEL *KHA7.11W4*



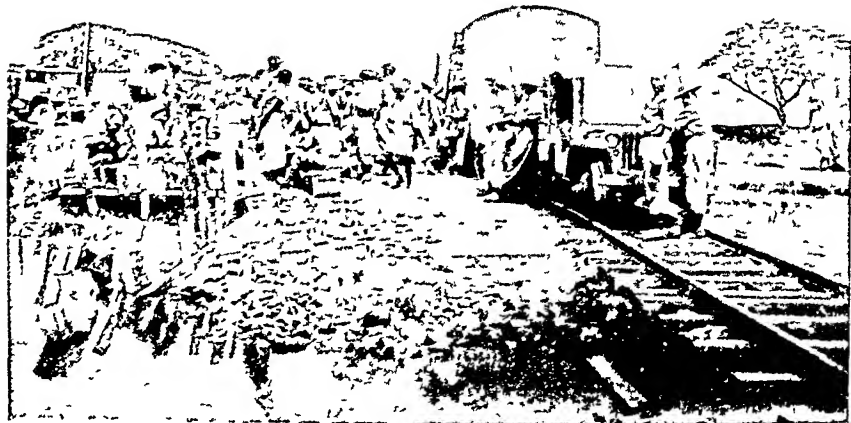
Wounded crossing flood banked river on aerial cableway



An ambulance convoy prepares to leave 7 Indian Division Admin Box with the wounded



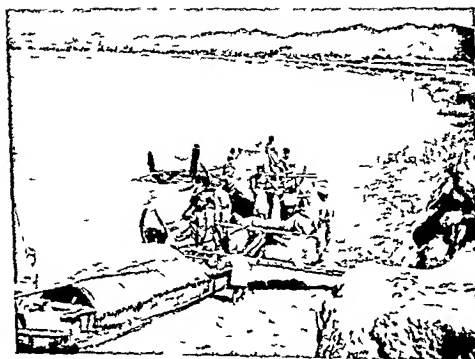
Train load of stores and water arrives at a dump in Keren (Eritrea)  
Train will take back casualties



A jeep train with casualties at Waw (Burma)



A casualty from the battle of Icar Hill being collected by a carrier  
at an advanced dressing station



A stretcher case being carried aboard an improvised hospital  
sampan in Arakan



A jeep fitted with stretchers for evacuating lying cases



Casualty being loaded on a light aircraft

## THE AIR EVACUATION OF CASUALTIES DURING WINGATE'S EXPEDITIONS

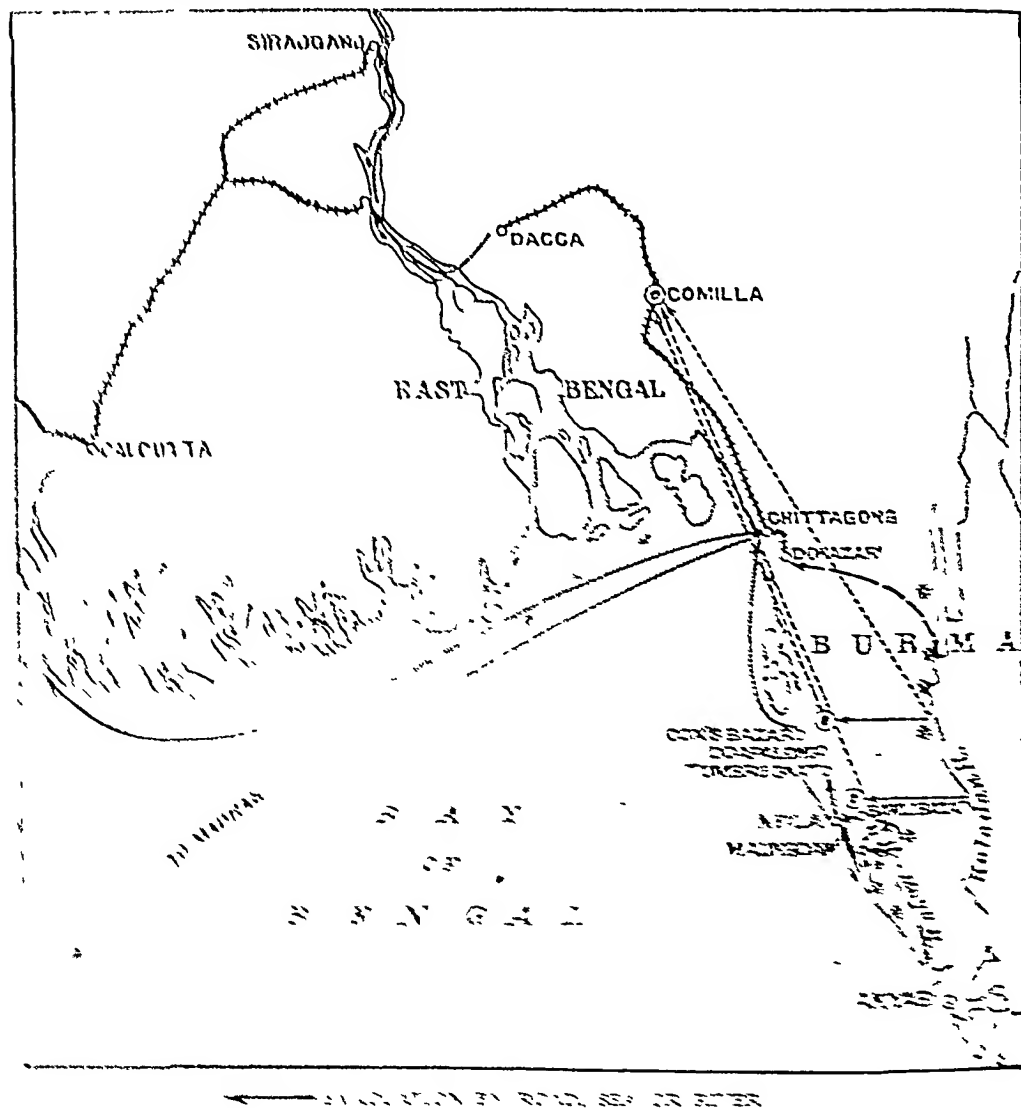
At the beginning of 1943, Wingate's first experimental long range penetration force set out from Imphal and crossed the Chindwin to attack the Japanese lines of communication from Mandalay to Myitkina. For this force there was no possibility of evacuating casualties other than by carrying them with the columns. In the case of one column, however, a Dakota transport aircraft was sent to evacuate seventeen casualties from a clearing in the teak jungle near Bhamo. In spite of the fact that the clearing was 400 yards short of the desired 1,200 yards runway, minimum for a Dakota aircraft, the evacuation was successfully accomplished. General Wingate's experience in this campaign prompted him to strongly recommend that a fleet of ambulance aircraft should be provided for the evacuation of casualties since to abandon casualties in the jungle was to undermine completely the morale of the men and to add greatly to the difficulties of the commanders concerned.

## CASUALTY EVACUATION DURING THE SECOND ARAKAN CAMPAIGN

During the Second Arakan Campaign which began after the monsoon of 1943, the objective was again Akyab, with a corps attack instead of the divisional attack of 1942. But owing to a last minute withdrawal of landing craft for use in Italy, the combined operations from the sea had to be cancelled and the attack followed the pattern of the 1942 campaign. One division advanced along the coast, west of the Mayu range, with Maungdaw as the first objective. A second division crossed the Mayu range at the Goppe and Ngakyedauk passes and advanced down the Kalapanzin valley with Buthidaung as its first objective. The 81st West African Division entered the Kaladan River valley via the Sangu valley. It was an extremely difficult journey by river and track. Casualties were evacuated from the Sangu line of communication by river, using small country craft and staging overnight in ISSs sited along the valley. The nearest hospital was at Dohazari, where there was a rail connection with Chittagong. During the journey by river, the ambulance sampans had to negotiate a series of rapids. Once the division crossed the range from the Sangu valley into the Kaladan valley the country was suitable for the construction of landing strips, and air evacuation became possible. Strips for light aircraft (300 yards) were constructed in about three days, and for Dakota aircraft (1,200 yards) at the more important centres in about seven days. Evacuation of casualties by air became the only method of evacuation for this division. It was the first time that the sick and wounded of a division had been evacuated entirely by air, and the experiment was a complete success. Over 1,000 casualties were evacuated. Light aircraft (Tiger and Fox Moth suitably modified) and some of the Dakotas took casualties to the aerodromes in the Cox's Bazaar area, and other Dakotas evacuated direct to Comilla, which had been developed as a forward hospital area for the Arakan front for those patients who could be evacuated by air, as it already had a suitable aircraft base.



# DIAGRAM OF CASUALTY EVACUATION DURING THE SECOND ARAKAN CAMPAIGN 1943-44



The main feature of casualty evacuation from the divisions in the Kalipanzin valley and west of the Mayu range was the development and use of jeep ambulances, capable of carrying two stretcher cases. This was made possible by the engineers constructing jeep tracks to the forward areas and over the passes in the Mayu range. It represented a great advance over the system of mule and stretcher bearer evacuation of 1942-43.

Another feature of this campaign was the concentration of medical units, sited close to the fighting area, for the treatment and holding of uncomplicated and light sick cases in the Naf Peninsula. The Japanese tactics of outflanking attacks on the lines of communication resulted in the medical units often being overrun but the use of the Naf Peninsula provided an escape from that danger. Also the Naf River provided a smooth means of transporting the sick to these units. Three MTUs and three CCSs were sited in this area, and this brought about a very great saving in the movement of the sick and made possible earlier treatment and more rapid return to duty of a large proportion of them.

The general lines of evacuation, apart from these modifications, were similar to those of 1942-43, i.e., from RAP to ADS to MDS to CCSs or MTUs sited in the Naf Peninsula. Fewer staging sections were required along the lines of communication owing to the more rapid evacuation obtained by the use of jeep ambulances. From the Naf Peninsula the evacuation was by river to Tumbru Ghat, by road to No. 125 IGH at Doapalong and by river and road to the Cox's Bazaar hospitals where 1,700 Indian, 300 British and 1,000 West African patients could be held. Evacuation from Cox's Bazaar was by sea to Chittagong, as in 1942-43, with greater use being made of the increased hospital cover in Dacca.

The evacuation chain still involved a large number of stages and changes of transport. The flood of sickness was again so great that in spite of the use of MTUs and increased forward hospital cover, a large number of relatively light sick patients were still transported to the base hospitals in India over 1,000 miles distant. Hence full use was made of the very limited air lift available from Bawli Bazaar and Ramu airstrips to Comilla. These patients were spared the long journey by river, road, sea and rail and were in the hospital in Comilla in as many hours as would take days by the surface route.

#### AIR EVACUATION OF CASUALTIES DURING WINGATE'S SECOND EXPEDITION—THE CHINDITS OF THE 3RD INDIAN DIVISION

In February 1944, the 3rd Indian Division (Special Force) was ready to strike from Imphal into Northern Burma to destroy the Japanese lines of communication. The advanced guard reached the Chindwin by the end of the month. The main part of the operation consisted in the fly in by gliders of two brigades to selected landing areas on the Mandalay-Myitkina line of communication. The landing areas were 'Broadway' (north east of Indaw) and

'Piccadilly'. On 5 March 1944, 'Piccadilly' was found to have been obstructed by the Japanese and all troops were diverted to 'Broadway'.

At the Quebec Conference in 1943, it had been envisaged that all casualties from the Special Force in Burma would be evacuated by air. Consequently the United States Army Air Force (USAAF) provided the Air Commando Force, which included L1 (Vultee Vigilant), L5 (Stenson Reliant), C 64 (Norseman) and C 47 (Dakota) aircraft equipped for the purpose of evacuation during the expedition. During the twenty-six days preceding D-day, light aircraft evacuated 700 casualties from the advanced guard of the ground troops during their advance to the Chindwin. The patients were evacuated from improvised air strips to the forward hospital area at Imphal. Mostly L1 aircraft (Vultee Vigilant) were used and were called up by wireless to land on the previously prepared paddy fields and jungle clearings to evacuate the sick. Casualties would frequently be in the hospital within four to six hours of being wounded. A number of casualties from a Commando Force air-landed on the banks of the Chindwin, to the south of the main crossing, and were evacuated by glider. The gliders were snatched up and towed to Imphal by Dakota aircraft.

The main force which landed at 'Broadway' by gliders sustained casualties during the night landing. By the next day, a strip suitable for Dakota aircraft had been improvised and these casualties were the first of the many to be evacuated by Dakota aircraft from the 3rd Indian Division during its operations in Burma. A further landing was made by General Lentaigne's Force near Inywa, fifty miles south of 'Broadway', at a landing area known by the code name of 'Chowringhee'.

As the Chindit columns moved north, harrying the Japanese lines of communication to Myitkina, the Japanese launched their bold offensive across the Chindwin, surrounded Imphal and Kohima and threatened the base and railhead at Manipur Road. Hospitals in Imphal and Kohima had to be rapidly withdrawn and deployed. They were divided into two groups, one group was withdrawn to Comilla and Agartala, where the aerodromes which were to supply Imphal were sited. The other group was withdrawn to the Brahmaputra valley in North-east Assam, to cover the fighting at Kohima and Mampur Road, and also to cover the evacuation from the Chindits, which had now to be switched to Dinjan, Margherita, Chabua and Sylhet aerodromes.

As the Chindits spread their area of destruction along the Japanese lines of communication south of Myitkina, further landing strips were constructed near the strategic points. 'Aberdeen' and 'White City' were two such strips. The latter was sited near the rail block at Henu, which was the key position established by the Chindits. There was much fighting for the strip itself and, during one period, ambulance aircraft were taking off with casualties, under fire from the Japanese who were holding the far end of the strip.

By early May 1944, the strips 'Aberdeen' and 'White City' were evacuated and the strip 'Blackpool' was developed in the Mogaung valley. By the middle of May 1944, General Stillwell was in charge of the operations designed to capture Myittha. His American trained Chinese, the American Marauders and British Kachin Levies converged from the north, and the Chindit columns from the south and west. The Air Commando Force was dissolved and General Old's Air Transport Command (ATC) took over the task of the supply and provision of aircraft for casualty evacuation from the Chindit Aerodromes in North East Assam were used by ATC aircraft and all Chindit evacuation was then to the hospitals at Paritola, Dibrugarh and Ledo. The monsoon restricted the evacuation to the all weather strip at Myittha, which was captured at an early date. The plight of the Chindit columns operating in the area west of Myittha became serious when light aircraft could no longer use emergency paddy fields and jungle landing grounds. British Sunderland flying boats were therefore transferred from Coastal Command in Ceylon to the Brahmaputra at Dibrugarh. Magnificent work was done by these flying boats, which were flown across the mountain barrier between North east Assam and Burma to the Indawgyi Lake, west of Myittha. Although these aircraft have a low 'ceiling' they were flown across the mountains through monsoon clouds and storms. Some sorties were abortive owing to poor visibility and flying conditions. Frequently the pilots had to take their aircraft through cloud filled gaps in the chain of mountains. On numerous occasions, the weather conditions were too bad to allow their fighter escort to accompany them.

During the period from the end of May 1944, to the beginning of July 1944 over 500 sick and wounded, collected from the Chindit columns and brought to Indawgyi Lake by mule and hand-carriage, were evacuated to safety by this means. Amongst those evacuated were seriously ill cases of scrub typhus. The casualties were loaded on to the flying boats from collapsible dinghies. Only one flying boat was lost during these hazardous flights and this was wrecked by floods whilst moored on the Brahmaputra river during a monsoon storm.

During July 1944, the Chindits were withdrawn, having successfully completed their role, and they were replaced by the 36th British Division. Evacuation from the 36th Division was by ATC aircraft from Myittha to North eastern Assam.

#### EVACUATION OF CASUALTIES DURING THE BATTLE OF IMPHAL AND KOHIMA

April and May of 1944 were critical months. Medical planning for the northern front had to be completely reorganised. As mentioned previously, the hospitals forming the forward hospital area in Imphal and Kohima had to be withdrawn to Comilla, Agartala and North eastern Assam. The decision to form hospital areas at Comilla and Agartala had to be made because these were the base aerodromes from which Imphal was to be supplied. Transport aircraft returning with casualties could not be diverted and therefore hospitals had to

be sited near the aerodromes. Again, owing to the enormous commitments which the engineers had to accept hospital sites and roads had to be improvised. But even improvised hospital and road construction took many weeks to complete, and as a result, only a portion of the casualties could be held at Comilla and Agartala, and the remainder had to be staged and further evacuated by ambulance trains to the Dacca hospitals.

Thus the ideal of concentrating hospitals at Comilla and Agartala and of bringing all casualties by air to Dacca could not be achieved, owing to the acute shortage of aircraft and to the fact that the medical authorities had no ambulance aircraft which could be diverted at will. Throughout the battle for Imphal, one squadron of Dakota ambulance aircraft could have covered the evacuation of all the sick and wounded into Dacca. The aircraft could have back-loaded supplies from Dacca air-fields and the peak periods of evacuation could have been covered by small evacuations in supply aircraft to Comilla and Chittagong, where hospitals were already available for garrison cover.

It was at this stage that the movement of troops and casualties by air on a large scale developed. Two divisions were flown from Arakan to Imphal. Base installations, including hospitals, were evacuated from Imphal by air and No. 3 British Neurosurgical Unit was flown to Comilla. The latter move was unique in that the unit did not cease to function. One aircraft carried eighteen of the more seriously ill neurosurgical patients and treatment was continued immediately, by part of the unit, on arrival at Comilla.

Throughout the siege and the battle of Imphal, the number of casualties evacuated by air averaged over 1,000 per week. In the early days of this evacuation, the tendency was to arrange mass evacuations at intervals, which invariably caused a certain amount of chaos and congestion at the receiving end. A smooth flow of evacuation was however soon arranged. This did much to avoid a situation which occurred at Comilla, where, at one stage, a 1,000-bedded IGH was holding 4,000 patients. The next difficulty to be overcome was the indiscriminate loading of aircraft, irrespective of destination, which had resulted in the Chittagong hospitals becoming grossly overcrowded. This obstructed the evacuation of long-term cases to the base hospitals, as all the cases from Arakan, Comilla and Dacca had to be staged in the Chittagong hospitals, preparatory to their evacuation by hospital ship.

This overcrowding also caused the evacuation of slightly ill patients from Chittagong to make room for seriously ill cases. Casualties were eventually evacuated only to Comilla, with an overflow to Agartala when necessary, which enabled a more careful sorting of patients. Long term cases requiring more than two months' hospital treatment, were evacuated by ambulance trains to Chittagong, to await further evacuation by hospital ships to the base hospitals in the India Command. Patients who required less than two months' hospital treatment were evacuated by ambulance trains to the Dacca

hospitals, and the shorter term sick were held, whenever possible, at Comilla and Agartala, near the convalescent depots and reinforcement camps, through which they could eventually be returned to their units

From this point, air transport became the established and the only practical method of evacuating casualties. The acute shortage of aircraft and the lack of control of the destination by the medical authorities, however, had a very great influence on medical planning in the succeeding stages of the Burma Campaign. The outstanding achievement of air evacuation was the hospital treatment of casualties far from the battle areas within a matter of hours.

Concentration of large number of patients raised great difficulties in the sorting of casualties, both forward at Imphal and at Comilla. A directive on the evacuation and distribution of the sick and wounded was issued by the medical branch of the Fourteenth Army. The objects aimed at in this directive were —

- (i) The retention of all sick and wounded who could be expected to recover within a period of three weeks in forward hospitals and MFTUs
- (ii) The efficient and rapid evacuation of all longer-term cases to Comilla, Agartala or Dacca, where all patients who could be expected to recover within two months were to be retained
- (iii) The rapid evacuation of all patients who would require longer hospital treatment than two months to the base hospitals in the India Command
- (iv) The early selection of certain special types of serious and urgent cases, such as gunshot wounds of the head, maxillo facial injuries, penetrating eye wounds, severe burns, fractures of the femur, etc., and their rapid selective evacuation to the specialist units where they could be treated most efficiently

#### CASUALTY EVACUATION DURING THE RECAPTURE OF BURMA

With the defeat of the Japanese in the Arakan and at Imphal and Kohima, during 1944, the stage was set for the final reconquest of Burma. The XV Indian Corps in Arakan and the 36th British Division in North Burma were placed directly under the command of Headquarters ALFSEA whilst the large L of C areas of the Fourteenth Army, the XV Indian Corps and the 36th British Division, in Assam and Bengal, were administered by the L of C Command. With Lord Louis Mountbatten's decision to fight through the monsoon and pursue the defeated remnants of the Japanese force from Imphal to Tamu and down the Kabaw valley, which involved difficult mopping up operations around Imphal and Kohima and along the hill tracts towards the upper Chindwin valley, the main drive took the form of two columns, one along the Tamu road to Sittaung on the Chindwin and down the Kabaw valley and the other along the hill road to Tiddim into the

Chin Hills and then into the lower part of the Kabaw valley. All hospitals were sited in the L of C Command, whilst each corps developed two corps medical centres with CCSs and MFTUs. Field medical units were attached to the divisions in the usual manner. The central group of hospitals in the L of C Command at Comilla, Agartala and Dacca were designated advanced base hospitals and provided approximately 12,000 beds.

A directive on the evacuation and distribution of casualties was issued by DDMS, L of C Command under the instructions of the DMS, ALFSEA. The line of evacuation of casualties was to be as follows :—

(i) *RAP*

(ii) *Field ambulance*

(ADSs sometimes split off and formed additional link in the chain)

*Function*

First aid and emergency treatment.

(iii) *Corps medical centre*

Usually two CCSs and two MFTUs with some special units, *e.g.*, ophthalmological unit, head injury unit, corps psychiatrist, *etc.*

*Function*

Major emergency treatment holding all cases expected to be fit within three weeks.

(iv) *Advance base hospitals*

*Function*

Definitive treatment of all except long-term cases and treatment of special cases, *e.g.* head injuries, gunshot wounds of femur, maxillo-facial injuries, severe eye injuries psychiatric cases, severe burns, holding of all cases expected to be fit for discharge within two (later three) months

(v) *Base hospitals*

*Function*

Long-term treatment of all kinds. Receiving all patients not expected to recover within two (later three) months.

Air evacuation had already become the most important method of casualty evacuation in 1944. During the advance into Burma it was the only practicable method and was used on a greatly extended scale. The medical planning was based on an all-air evacuation basis from the forward areas, whilst full use was to be made of the other surface methods of evacuation in the rear areas.

Evacuation of casualties was difficult. Owing to the mountainous nature of the country and the rains, which precluded the use of other than all-weather strips, casualty evacuation by light aircraft from the forward areas was impracticable. The evacuation service was thrown back upon the methods used during the early Arakan campaigns, in a country which was much more mountainous and was often more difficult to negotiate. The old methods of evacuation by hand carriage, mule carriage and jeep ambulance had to be used. The unmetalled roads were soon churned to mud and, frequently, lengths of road became completely impassable to wheeled traffic.

The continuous heavy monsoon rain caused frequent landslides along the hill sections of the roads, which were cut as ledges into the steep slopes. In the valleys, especially the Kabaw valley, the wheels of the ambulance vehicles and jeeps would sink to the axle in the deep, sticky, black alluvial clay. The four wheel drive of the ambulance jeeps and cars could not compete and man-handling of the vehicles over the worst sections was resorted to by the troops. Often it took two days and nights for an ambulance to cover the distance between Sittaung and Tamu, a journey which normally took only a few hours. Stretcher carriage had to be resorted to from Pantha to Tamu, a distance of seven to ten miles. A section of river from Sunle to Tamu was found to be navigable and 'Dukws' were brought up to evacuate casualties by this route. 'Dukws' had already been used to evacuate casualties on the stretchers of the *Pruma Chaung* and the Naf River in Arakan. They proved extremely valuable over short distances and avoided change of transport at road river junctions along the line of evacuation. Stretchers could be placed on the decks of these vehicles. The main disadvantages were, however, the difficulties of maintenance, their large size and, in Burma, the difficulty of obtaining them for evacuation of casualties.

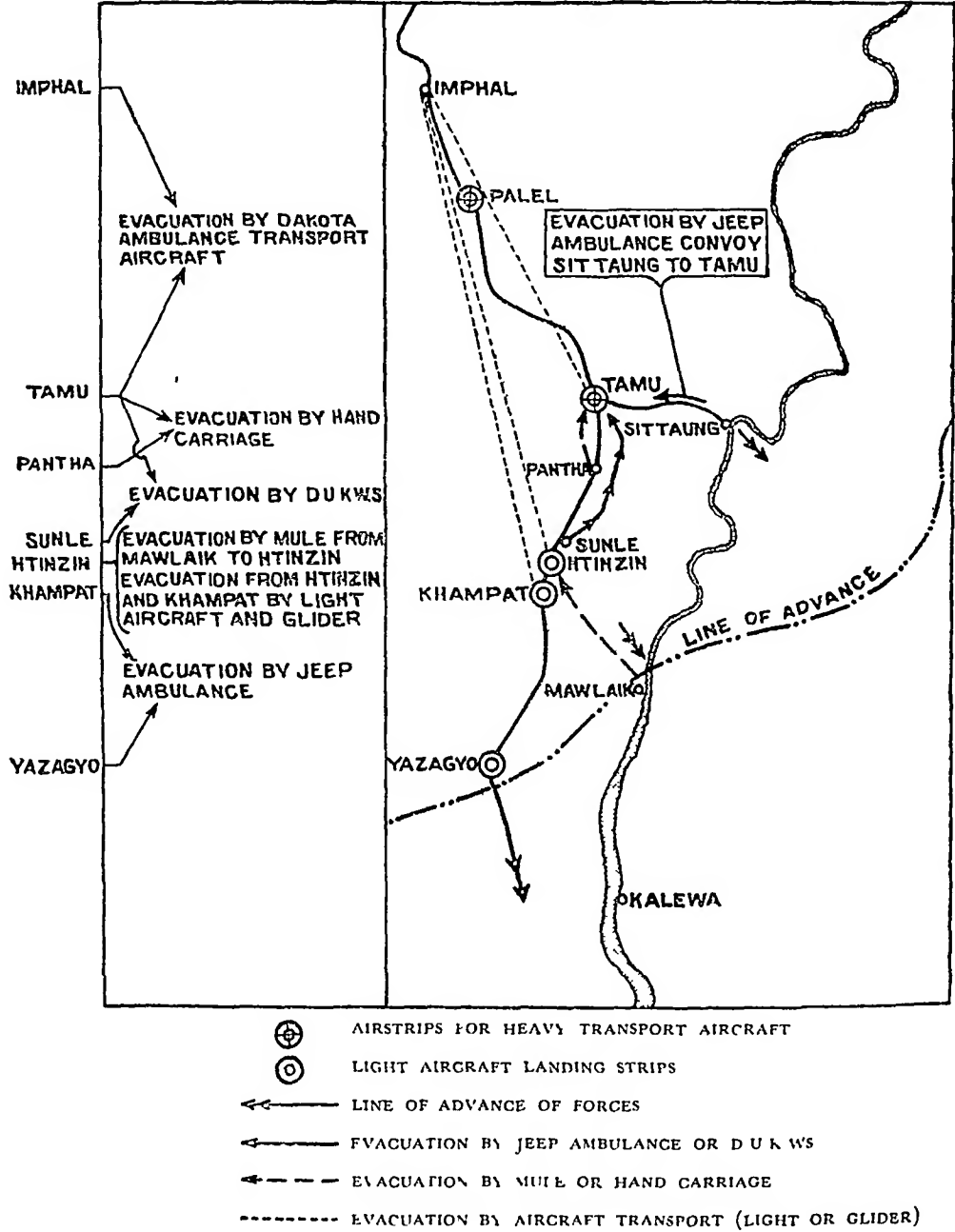
As the monsoon ended and the ground dried, it became possible to construct light aircraft strips along the Tamu-Kabaw valley road but owing to the nature of the country, this was not possible along the mountainous Tiddim road. Air evacuation made it possible to evacuate almost any serious case. Hitherto very ill patients had been held forward in field medical units as they were totally unable to withstand the physical hardship of the evacuation line. It was still necessary to hold the very ill casualties along the line of the Tiddim advance. Unfortunately these troops ran into one of the worst of the scrub typhus belts and the forward units were extremely congested.

Along the Kabaw valley axis of advance, light aircraft strips were constructed at intervals of approximately fifty miles, and evacuation by L5 and Moth light aircraft became possible. Evacuation of casualties by glider was also carried out during this advance, where absence of trees made it possible for the Dakota aircraft to snatch the gliders from the ground by means of nylon ropes. For instance Wayco CG4A gliders were used to evacuate casualties from Khampat to Imphal until four gliders crashed on landing. There was no loss of life or major injury to the patients in this accident, but the aircraft were rendered unserviceable. The 'Wayco' glider was able to carry up to fifteen sitting patients, or four lying patients in double tier stretcher slings and five or six sitting patients. The patients were accommodated in the cabin with the stretchers slung along the long axis of the aircraft on either side, immediately behind the pilot's cabin. The nose of the aircraft dropped to allow the loading and removal of the casualties.

Whilst the troops were operating just forward of Yazagyo, a light strip was being constructed near this village. Evacuation by mule from the troops attacking Mawlaik was necessary owing to



DIAGRAM OF EVACUATION AT ONE STAGE OF THE  
ADVANCE FROM IMPHAL-KABAW VALLEY, 1944



the lack of tracks suitable for jeeps and the impossibility of constructing a light strip at that time. The evacuation by stretcher bearers from Pantha to Tamu and by 'Dukws' from Sunle to Tamu was necessary until light strips were built and the roads became passable after the monsoon.

For the drive to capture Kalewa, the XXXIII Corps sited the corps medical centre in the area Yazagyo Inbaung. The centre consisted of two CCSs, one MFTU, two X-ray units, one field transfusion unit, one dental unit, one sub depot medical stores, a corps psychiatric centre, one motor ambulance section, one East African motor ambulance convoy, and three sections of American Field Service jeep ambulances. Here all the casualties expected to be fit for discharge to duty within a period of three weeks were held and treated. Surgical cases were concentrated in the CCSs, whilst all malaria and the majority of the medical cases were treated at the MFTU. Casualties came in by light aircraft from Mawlaik, Nanzalin, Kalewa, etc., and 'over three weeks type' patients were re-evacuated in Dakota and Commando transport ambulance aircraft to the advanced base hospitals at Comilla. This corps medical centre was a prototype of the corps medical centres established throughout the advance into Burma. Approximately 60 per cent of the casualties were held and treated at this level and a considerable saving in man power and casualty movement was achieved. Of the remaining 40 per cent of the casualties which were evacuated to the advanced base hospitals, it was found that 25 per cent (i.e., 10 per cent of the total) required further evacuation to the base hospital level for longer than three months' hospital treatment.

With the capture of the bridgehead on the Chindwin River at Kalewa, the Fourteenth Army was prepared for the major operation, the advance across the plains of Central Burma to cross the Irrawaddy and capture Mandalay. Further south the XV Indian Corps was given the task of advancing down the Arakan coast in a combined operation with the naval and air forces. After air and sea bombardment, Akyab was occupied by land from the Kaladan valley and by a landing from the sea. Ramree Island was also captured. Having secured these two vital air bases, further landings were made on the mainland opposite Ramree Island behind the Japanese forces. Small groups of Japanese were cut off from their supplies and destroyed and the rest were driven from Taungup into the Irrawaddy valley at the time that the Fourteenth Army troops were advancing south from Meiktila to cut off their retreat.

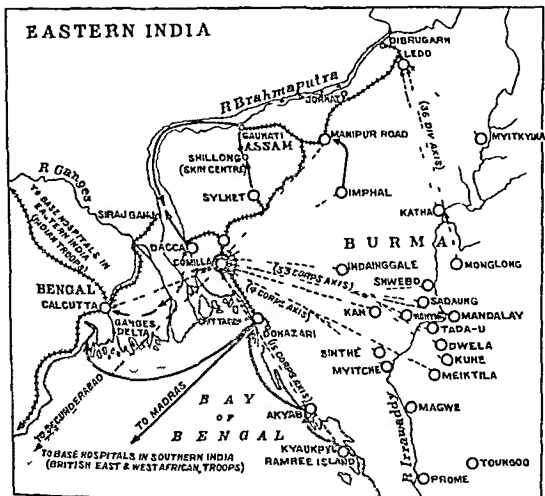
Some of the fiercest fighting in the XV Corps campaign took place during the landings south of Akyab at Myebon, Kangaw and An, etc. Evacuation from the beaches was planned to take place in three echelons. Casualties were collected at a beach dressing station formed by a beach medical unit, where first aid surgery was carried out. They were then evacuated by minor landing craft (LCMs) and landing craft tanks (LCTs) to a landing craft infantry (depot ship) (LCI(D)), evacuation commencing after the third wave of LCMs, and LCTs

came in. On this depot craft there was a mobile surgical unit plus 100 beds where emergency surgery could be done. The third echelon in the forward evacuation from the beaches was to a hospital ship which at best would come to within two miles of the shore. It will be appreciated that owing to the nature of the coast, with its long, tidal *chaungs* and shallow mangrove swamps, this ideal arrangement was not always practicable. Coastal ambulance steamers (the *Nalcheria* and the *Badora*—capacity 175 patients) and ambulance creek steamers the *Agni*, the *Vanu* and the *Lah* (capacity—40 lying and 60 sitting patients) were used. In an emergency, as at Kangaw all types of craft were pressed into use. The creek steamers operating with the 82nd West African Division, between the remote *chaungs* and creeks at Taungup and Giwa creek and Ramree Island, were equipped with radio to give information of the arrival and number of patients, etc. This was extremely valuable and improved despatch and reception arrangements.

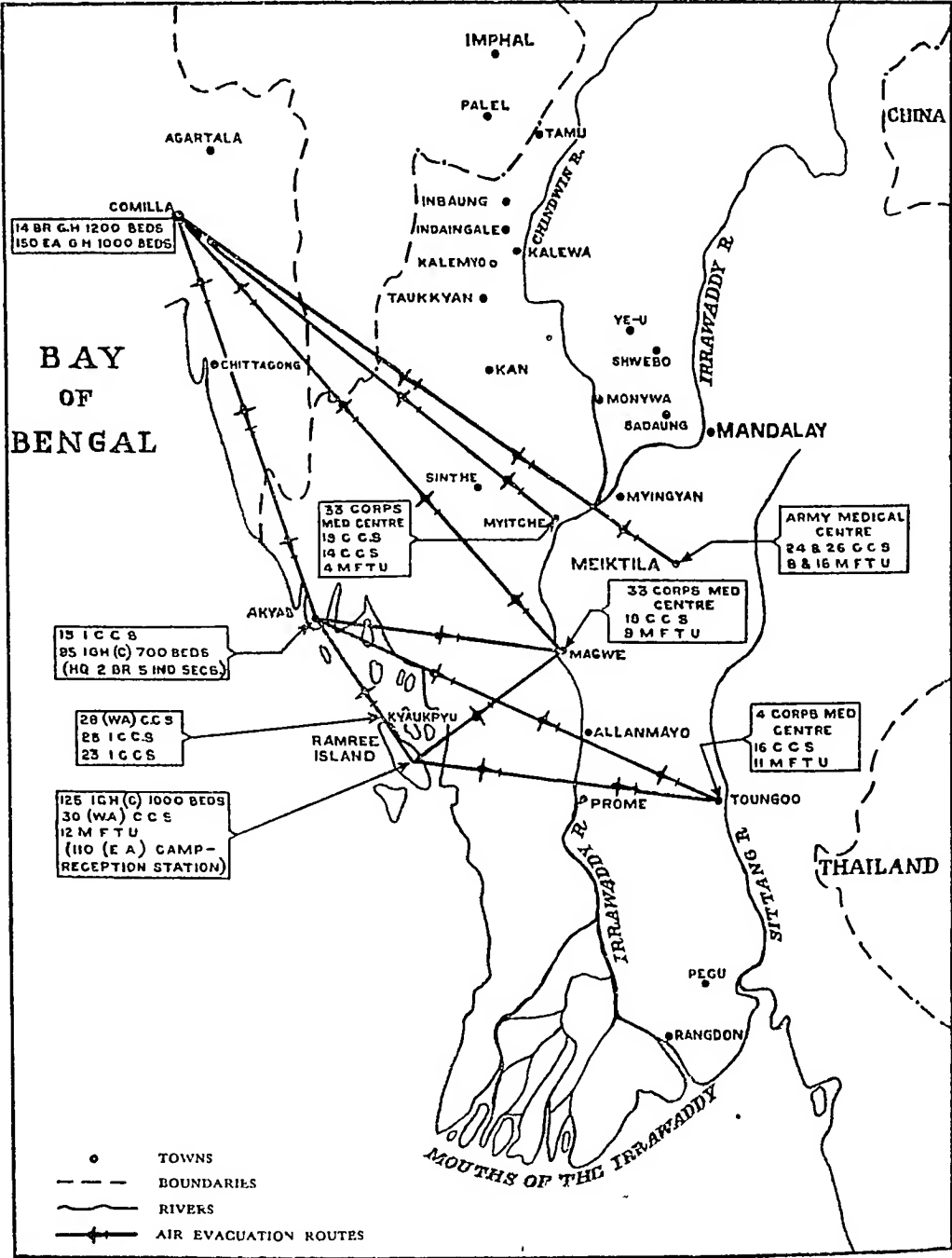
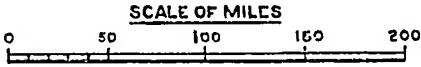
After the beach-heads were established, an attempt was made to filter the short-time cases (under three weeks) and evacuate them by coastal ambulance steamers to the corps medical centres established at Akyab and later at Kyaukpyu on Ramree Island. Light aircraft strips were constructed and the more serious cases were flown quickly by L5 aeroplanes to the corps medical centres. At Kyaukpyu, the light aircraft strip was sited immediately adjacent to one of the CCSs in the corps medical centre, and casualties could be hand-carried from an aircraft taxied to within a short distance of the wards. After treatment there, the patients were evacuated by Dakota aircraft to the advanced base hospital area at Comilla. Patients were also evacuated by ocean going hospital ships (the *Kaioa*, the *Karapara*, the *Amarapoora*, the *Ophi*, the *Vasna*, the *Melchior Trueb* and the *Wu-Sueh*) and were taken to Chittagong. At this port, patients likely to recover within three months were off-loaded for despatch by ambulance train to Dacca, Agartala and Comilla, whilst long-term patients remained on board. Other long-term patients concentrated at Chittagong from the advanced base hospitals and those from the northern front were embarked for the base hospitals in India Command.

In the north, the main drive into Burma developed across the Chindwin. The XXXIII Corps advanced to the line of the Irrawaddy, opposite to and north and west of Mandalay. The 19th Indian Division crossed the Chindwin at Sittaung, marched across the jungle-covered mountains of North Burma to link up, near Wuntho, with the 36th British Division advancing south along the Irrawaddy from Myitkina. Both these divisions drove south to take Mandalay from the north, the 36th Division taking the more easterly route across the Schweli River and through the Southern Shan States. Evacuation from the XXXIII Indian Corps operational area was almost entirely by air, taking the pattern of light plane evacuation to the corps medical centre, and Dakota evacuation from this centre to the advanced base hospitals at Comilla. The two medical centres of this corps 'leap-frogged' during the advance. The main fighting took place in the

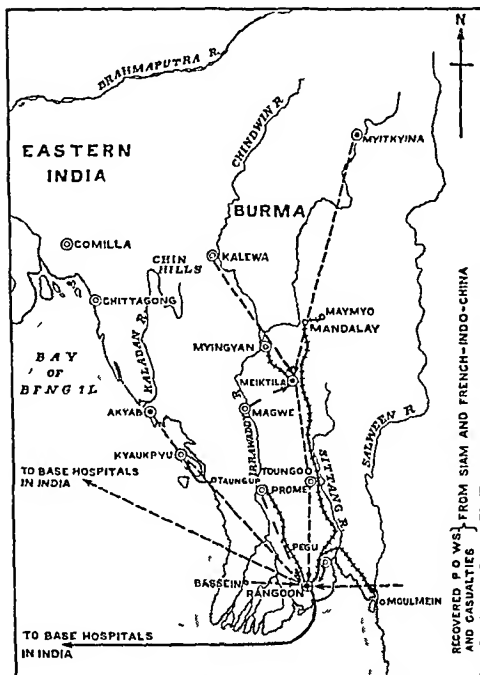
DIAGRAM OF CASUALTY EVACUATION ROUTES—BURMA  
APRIL 1945



AIR EVACUATION OF CASUALTIES—APRIL—MAY 1945



## CASUALTY EVACUATION PLAN FOR BURMA, 1945



- EVACUATION BY SEA OR ROAD  
 - - - - - EVACUATION BY RAIL  
 . . . . . EVACUATION BY AIR (TRANSPORT AIRCRAFT)  
 . . . . . (LIGHT AIRCRAFT)  
 ○ AIRFIELDS  
 ⊙ GARRISON HOSPITAL CENTRE AT MEIKTILA  
 ⊕ ADVANCED BASE HOSPITAL CENTRE AT RANGOON

The following were the approximate figures of Indian, British and Australian RAPWI in South East Asia —

	<i>Indian</i>	<i>British</i>	<i>Australian</i>	<i>Total</i>
Singapore . .	16,133	9,331	5,735	31,199
Malaya . .	3,614			3,614
Burma . .	6	85	1	92
Siam . .	716	13,467	4,592	18,775
French Indo-China .	102	2,339	264	2,705
Hong Kong . .	2,501	3,432	12	5,945
Java . .	39	2,175	1,112	3,326
Sumatra . .	1,824	1,591	5	3,420
Total	24,935	32,420	11,721	69,076

In addition to these, there were about 1,60,000 Dutch and 15,000 others, which would make a total of approximately 2,44,000. An idea of the magnitude of the problem may be obtained by briefly reviewing the situation in each country.

In Siam, there were known to be a number of camps scattered throughout the country. But the Japanese concentrated them in Bangkok. The American RAPWI were evacuated by air immediately owing to the unlimited supply of aircraft. But the problem for the ALFSEA was difficult as only a limited supply of aircraft was available. Nonetheless, the Joint Logistical Planning Committee, SACSEA, agreed to employ four squadrons of Dakota aircraft to fly in two IGHs(C) to Bangkok. These aircraft could then evacuate most of the sick RAPWI to the advanced base hospital group established in Rangoon on the return flight, leaving the hospitals to care for the remaining sick and to act as cover for the division which was to garrison the country.

In this way, approximately 16,000 RAPWI were evacuated by air from Bangkok and Saigon in French Indo-China, to Rangoon during the last week of August and in the month of September 1945. In actual fact it was found that the best units to fly in to cover the evacuation were the three divisional field ambulances, a CCS and a MFTU together with a casualty air evacuation unit.

During the evacuation, an epidemic of smallpox was reported from a camp of 30,000 labourers abandoned by the Japanese, and energetic measures were taken to limit and combat the disease by parachuting vaccine lymph and a medical team.

In French Indo-China, the RAPWI numbered about 9,000 who were concentrated at Saigon prior to their evacuation by air to Rangoon *via* Bangkok. Further evacuation of RAPWI sick from the 3,000 bedded advanced base hospital group in Rangoon (expanded to nearly 10,000 beds) was by hospital ship to Madras from where they were transported by ambulance trains to the Bangalore base hospital area.

At Singapore, the RAPWI who were sick and required evacuation through medical channels numbered about 20,000. Medical

stores and supplies together with two medical teams were landed by parachute at the Changi Road airfield on 30 August 1945, with the object of helping the medical personnel operating within the camps. Additional medical personnel were also attached to No 2 RAPWI control staff located in Singapore. On 5 September 1945, the additional medical personnel and two hospitals reached Singapore with the Allied Expeditionary Force. Three hospital ships (the *Karoa*, the *Karapara* and the *Amarapoora*) were amongst the first ships to arrive ready for the evacuation of the first convoys of the sick RAPWI.

Most of the RAPWI who had been held in camps on the Malayan Peninsula itself had been concentrated in Singapore, but a few were still remaining in the camps at Kuala Lumpur, Klang and Ipoh, and to these medical supplies were dropped by air. They were eventually evacuated *via* Singapore. The majority of the sick RAPWI from Singapore were also evacuated by hospital ships and carried to Madras *en route* to the base hospitals at Bangalore. A few, however, were evacuated in Sunderland flying boats to Madras and Colombo. By this means 339 sick RAPWI were evacuated to Madras and 352 to Ceylon.

In Java and Sumatra, the problem was more one of sending in medical supplies and Red Cross stores, than of evacuating large numbers of sick RAPWI. The RAPWI were mostly of Dutch and Indonesian origin. The total number of British RAPWI in Java was about 1,886 and there were no Indians. Medical supplies, the RAPWI control staff and medical personnel were despatched to Java in the cruiser HMS *Cumberland*.

Food, clothing and medical supplies were dropped by parachute into the camps in Sumatra, which were mainly located at Medan, Palembang and Rantau Parapat. 1,798 Indian and 1,669 British RAPWI sick were evacuated by sea from Benkalia and Pachin Baroc to Singapore. The evacuation was carried out in one LCT, four LCIs and the river steamer *Elizabeth*. Small numbers were also evacuated to Singapore by Dakota aircraft.

The task of evacuating and supplying RAPWI was thus successfully completed. Mastiff Control, SACSEA, closed on 29 September 1945, and the duties which remained were taken over by RAPWI Main Control ALFSEA. Sub control Colombo closed on the same date and remaining duties in this area were taken over by No 2 RAPWI Control Staff at Singapore, who then covered Java and Sumatra as well as Malaya. Sub control Calcutta closed down on 15 October 1945, when RAPWI stores and supplies became a normal commitment.

#### ORGANISATION OF AIR EVACUATION

Serious and urgent cases such as gunshot wounds of the head, maxillo-facial injuries, penetrating eye wounds, severe burns, fractures of the femur, *etc* demonstrated, more than others, that air



evacuation, when efficiently organised and skilfully used by those selecting the patients for evacuation, was a life saving measure. The organisation of air evacuation in Burma was briefly as follows :—

- (i) Medical branches of the formations concerned estimated the approximate number of casualties which would require evacuation each day :—
  - (a) by light aircraft to the corps medical centre ;
  - (b) from corps medical centre to the advanced base hospital group.
- (ii) These figures were transmitted to the Army Air Transport Organisation (AATO) at fortnightly intervals and aircraft allocations made accordingly. Any operational variation from the planned requirement was signalled immediately to this organisation, which requested diversion of RAF aircraft accordingly.
- (iii) Estimated times of arrival of the transport ambulance aircraft were signalled to the forward evacuation units on the strips and the formations concerned.
- (iv) Light aircraft normally worked on direct request from the formations, *i.e.*, the division or perhaps brigade to the squadrons concerned.
- (v) The casualty evacuation units employed on the airstrips in Burma were mostly ISSs which could handle efficiently from 50 to 200 patients per day and occasionally Indian field ambulances or sections of such units were used where more casualties had to be handled. (As an instance the Indian field ambulance used on the Imphal strip during the siege of Imphal in 1944, was able to cope with over 1,000 patients a day) Towards the end of the campaign, RAF casualty air evacuation units and ISSs were admirable for dealing with the British troops ; an ISS had usually to be attached to deal with the Indian and African casualties. These units were responsible for staging the casualties whilst awaiting the arrival of aircraft and their loading into the aircraft. An ambulance pool was attached to these units.
- (vi) At the receiving aerodrome, an aircraft carrying casualties, on approaching the circuit of the air-field, informed the control tower by radio of the number of lying and sitting patients carried. This was passed on to the evacuation unit, together with the unloading bay number. The aircraft was unloaded and the patients given food, rest and any necessary medical attention before being distributed to the appropriate hospitals in the advanced base hospital group.
- (vii) Documentation in Burma was reduced to a minimum compatible with efficiency. The basis was the field card AFW 3,118 and the envelope for the field card AFW 3,118A. On this card and envelope all that was necessary could be entered. On the forward airstrips, apart from the field medical card and envelope, which was kept up to date, as necessary, the only additional documentation was a record of total numbers as well as names and units of those evacuated. At the more rearward airstrips a nominal roll of patients in the aircraft loads was made out in triplicate. One copy was kept by the despatching unit, one was retained by the pilot of the aircraft and the third was despatched to the receiving

evacuation unit with the casualties. An abstract was made at the foot of the nominal roll of the number of lying and sitting cases and of any special cases. The total number of casualties evacuated by nationalities, lying and sitting, was usually required by the formation medical branches day by day. At base air-strips, it was desirable to have the record of the number of casualties arriving from the various forward centres of evacuation. Such statistics were of great value to the casualty evacuation staff.

Air evacuation from Burma consisted of three echelons. Firstly, there was evacuation from the forward areas by light aircraft. Casualties were conveyed from the MDS of a field ambulance or possibly an ADS or even a RAP to the appropriate corps medical centre, depending on the precise tactical situation, the presence or absence of alternative surface means of communications, the location, nature and number of casualties and finally, the possibilities of improvising landing strips. The optimum range for the L5 aircraft used was twenty to eighty miles. Ordinarily distances were not greater than fifty miles.

The second echelon consisted of evacuation by medium range transport ambulance aircraft from corps medical centre to the advanced base hospital group. Distances were of the order of 250 to 500 miles and involved the crossing of a belt of jungle covered mountains with peaks up to eight and nine thousand feet high and with few, if any, possible sites for forced landings. Evacuation from the hospitals in the large L of C area to the advanced base hospitals might also be included in this echelon. This evacuation was usually carried out in the same medium range aircraft, although light aircraft were sometimes used within this area.

The third echelon consisted of evacuation from the advanced base hospitals to the base hospitals in the interior of India. The numbers evacuated in this echelon were much smaller, as alternative surface routes were available and urgency in evacuation was less important. Even smaller numbers were evacuated by air, in stages, from the advanced base hospitals to the United Kingdom. Medium and long range aircraft were utilised for these evacuations.

The provision of medical staff for the aircraft evacuating casualties was a matter of considerable difficulty in Burma. As there was no 'Air Ambulance Service' almost any aircraft could be called upon to carry casualties. In the later stages of the fighting, when fly out of the casualties was undertaken by the aircraft taking in reinforcements, most of the casualties were carried by the aircraft of one squadron. In this case it was relatively easy to arrange for a pool of nursing orderlies to be maintained near the squadron. A minimum amount of equipment was carried by these orderlies. Their duties included general care and nursing of the casualties evacuated, psychological reassurance, attention to dressings and splints, administration of treatment (e.g., sulphonamide, penicillin), and the maintenance of adequate hydration. Much improvisation was resorted to in respect of the medical personnel caring for the sick during evacuation in Burma and medical personnel proceeding on leave or other duty were frequently detailed for these duties.

The organisation for the evacuation of casualties by air in Burma may be sub-divided into two phases, evacuation by light aircraft and that by medium or long range transport ambulance aircraft.

#### EVACUATION BY LIGHT AIRCRAFT

The types of aircraft employed in this method of evacuation, which was almost restricted to the first echelon, were the L5 (Stenson Reliant), the L1 (Vultee Vigilant), the larger C64 (Norseman), and to a lesser extent, Tiger Moth, Fox Moth, Anson, CG4A Wayco Gliders, and Auster Tailorcraft. By far the greatest amount of work was done by L5 aircraft. No Helicopter aircraft were available for use by the British forces in India, but an emergency evacuation of a crashed air crew was carried out by the American air force personnel in North Burma.

Prior to early 1944, the only aircraft available for light plane evacuation were a small number of RAF Tiger and Fox Moths, which were used in the Arakan and Kaladan Campaigns as well as subsequently in Northern and Central Burma. A small number of Anson aircraft which were also available, were found to be of little practical value, owing to their age, their mode of construction and the long take-off run required (800 yards).

From 1944 until 1945 three squadrons of the USAAF Air Commandos were available for use in Burma. They were Nos. 164, 165 and 166 Squadrons which usually operated with one squadron in reserve. There were usually thirty-two L5 aircraft in each squadron and from four to six C64 (Norseman) aircraft. A smaller number of L1's was sometimes attached. All three squadrons worked with Wingate's forces in 1944. During the advance from Imphal through Burma to Rangoon, one squadron was allotted to each corps and an additional flight of twelve L5's and three L1's was occasionally made available during peak periods of evacuation.

A flight of RAF L5's belonging to No. 221 Group was, in a few instances, loaned for the purpose of evacuating Army casualties and subsequently a few Auster Tailorcraft became available from RAF sources.

The casualty carrying capacity of aircraft employed in evacuation in the forward areas was usually small. The L5 (Stenson Reliant) aircraft could carry only one casualty.

In most of the aircraft used in Burma the casualty had to be carried in the sitting position, which was obviously undesirable in many cases. An apparatus was introduced which could be adapted to take either a lying or a sitting casualty and it is most desirable that all aircraft of this type should be so modified. The patient lying on a stretcher could be introduced into the rear cockpit through a large panel sited in the right hand wall of the fuselage. The head of the patient was normally carried towards the front of the aircraft, unless

a Thomas splint had been fitted, in which case the feet had to be threaded forward into the cockpit and the head and chest occupied part of the tail of the aircraft.

The maximum carrying capacity of the L1 (Vultee Vigilant) aircraft was four lying patients and three sitting, or eight sitting casualties.

For urgent use, the Norseman aircraft (C64), produced by the Noorduin Aircraft Company in Canada, had many advantages. This aircraft was used by the American Commandos as a medium transport plane. It is a high winged monoplane, giving easy access for stretcher bearers from all angles, with wide doors on each side of the cabin at stretcher hand carriage height, could carry five sitting cases and was capable of easy conversion to carry two or three stretcher patients on one side of the cabin, suspended by modifications of the standard webbing slings from the roof of the cabin in a tier of three. The Norseman had been used in Canada for snow landings with skis, it could also be fitted with floats.

The Tiger Moth aircraft, a two seater biplane was modified to take a stretcher case, by fitting a hinged lid over the top of the rear cockpit, through which a stretcher could be passed. There were various technical disadvantages in the use of this aircraft, and a stretcher case had to be enclosed in a rather confined space. A Neil-Robertson stretcher was necessary for this aircraft.

The Fox Moth had a rear cockpit occupied by the pilot and a forward cabin which could accommodate four sitting casualties or one lying case on a special stretcher with attendant.

The Anson aircraft could carry four sitting or one lying and three sitting patients. The door to the cabin was very awkward and required a Neil Robertson stretcher. Even this was difficult to pass into the cabin and, owing to the tubular frame of the aircraft, it was impossible to modify it. On the whole the aircraft was unsuitable for casualty evacuation and was little used in Burma.

The Wayco CG4A glider was capable of carrying up to fifteen sitting patients or four lying cases with five or six sitting patients. Owing to the sudden drag when the glider was being snatched off the ground patients had to be selected for this method of evacuation.

These light aircraft were able to operate from quite small airstrips, 300 to 400 yards in length and thirty yards in width. These were often constructed by the field ambulances and, in their simplest form consisted of paddy fields in a jungle clearing with the earth bunds separating the small fields dug out to give a continuously level surface. Where bulldozers were available this was accomplished quickly and easily. Preferably the surface was levelled and smoothed by a grader when these machines were available.

The airstrips were marked out in strips of white cloth, an 'L' shaped strip 6' x 1' marked the corners and similar strips 6' x 1' defined the sides at intervals of fifty feet. A 'T' made of similar material was sited to the left of the strips half way along it, with the upright of the 'T' pointing towards the aircraft as it came in to land.

The larger light aircraft, such as the Norseman and L1, required a larger landing strip about 600 yards long and forty yards wide. An Anson aircraft, in spite of its small capacity, required 800 yards of strip for safe take-off.

The essential medical requirements for a forward airstrip, which were usually provided and equipped by the field ambulance, included a ward or wards in which patients could await evacuation in comfort and yet be available for an aircraft the moment it arrived ; a treatment room able to deal with routine treatment of patients awaiting evacuation and any of the simpler and more urgent emergencies likely to arise in the transit of seriously wounded or ill patients ; facilities for providing tea, soup and emergency food or comforts ; sufficient trained personnel and transport for loading aircraft quickly ; a responsible person in charge of the evacuation arrangements with a good air force and ground liaison and adequate telephone or other communications. A stock of stretchers and blankets sufficient to cover expected contingencies was also important.

Signposting of evacuation units was an important factor in reducing the delay experienced by the unfamiliar pilots in locating these units.

Control of light aircraft was exercised by the squadron commander, who worked in close liaison with the corps medical centre. The aircraft were at the sole disposal of the medical services. They were available on an as required basis for casualty evacuation from the divisions. A great deal was left to personal contact between the pilots and the evacuation officers on the spot. The first pilot landing at the field ambulance airstrip was given a written statement of the numbers, details and urgency of cases awaiting evacuation. Any apparent neglect of one division to the advantage of another, or greater urgency for evacuation facilities in one division, if not settled by local direct liaison, were matters for ADMS divisions and DDMS corps to take up through medical channels.

In Burma it was found that on an average, a L5 aircraft was able to evacuate five casualties per day. The highest average was not more than six and thus a squadron of thirty aircraft could evacuate a maximum of 180 casualties a day for short peak periods of evacuation. Assuming that the length of flight was the average for the campaign (fifty miles between the forward and the rear strips), pilots and ground staff were sufficiently experienced to maintain an average of 90 per cent. aircraft in commission daily, and that flying and landing were possible on at least 75 per cent. of the days of the months, it was estimated that the monthly carrying capacity was 6,000. The highest evacuation rate by light aircraft achieved in Burma over a period of one month was 154 casualties a day by No. 164 squadron USAAF based at Shwebo in the first half of March 1945, and at Ondaw in the second half of the month. This was during the battle for the bridgeheads across the Irrawaddy in the attack on Mandalay. It was concluded that, under these conditions, one squadron would evacuate the casualties from a corps, but that it would be wiser to

have a strategic reserve consisting of a part or whole of a squadron maintained at army level and normally carrying out evacuation duties within the army area

Whilst the primary role of light aircraft was the evacuation of casualties, certain secondary roles were usefully combined. These included the transport of senior medical administrative officers, consultants and specialists as also flying in of reinforcements, food, mail, ammunition and items of personal kit. Urgently required medical stores such as blood, penicillin, etc., were flown in and pathological specimens, damaged spectacles, etc., were flown out. Spotting for artillery, carrying messages, and reconnaissance flights were also carried out. It is vitally important that casualty evacuation should be stressed as the primary role of light aircraft, as otherwise they are likely to be taken over for other purposes to the exclusion of their primary role. On the whole, the light plane evacuation service was uniformly excellent. Co-operation between the USAAF, RAF and Army medical authorities was very good.

The types of aircraft were well suited to the conditions, but a higher proportion of C64 (Norseman) aircraft and the modification of all L5's for stretcher carriage would have been advantageous.

The allotment of aircraft was insufficient, as all light planes had to be used at corps level, leaving none for army and L of C use. Many troops under direct army or L of C Command in Burma were sited in extremely remote and inaccessible areas and an additional flight of twenty-four L5's was required for this commitment.

An important point in connection with the use of light aircraft was that they needed special fuel (74 octane) and this had to be specially catered for by Q services.

#### EVACUATION BY MEDIUM OR HEAVY TRANSPORT AMBULANCE AIRCRAFT

Medium or heavy transport aircraft were, generally speaking, used only in the second and third echelons of the scheme of evacuation in Burma. Dakota (C47) and Commando (C46) aircraft were mostly used, the latter less frequently than the former. Occasionally Sunderland and Catalina flying boats were also used.

The capacity of the Dakota aircraft was for eighteen stretcher cases, accommodated in six tiers of three along the sides of the aircraft and five sitting cases, or a total of thirty sitting cases with normal personal kit. The stretchers were held in position by means of webbing slings suspended from the roof of the aircraft. All aircraft operating in the Burma fighting area were equipped with these slings, which could be stored away in a very small space at the point of suspension. They proved excellent in use and enabled any aircraft to be converted for casualty carrying duties in a few moments. The average load of a Dakota aircraft in Burma was ten stretcher cases and seventeen sitting patients, as this was found to be the approximate ratio between lying and sitting cases. Such a load did not take longer

than fifteen minutes to unload and about ten minutes to load. The usual method was to have four stretcher bearers inside the body of the aircraft, and two assisting at the door of the plane for off-loading the ambulances and passing casualties into the plane. Those inside the aircraft wore light, rubber soled shoes to prevent slipping on the floor of the aircraft.

Commando aircraft were able to carry twenty-four stretcher cases in tiers of four, fixed as in the Dakota aircraft, together with eight sitting, or alternatively thirty-four to forty sitting cases. Loading this type of aircraft was more difficult than the Dakota and took about twenty minutes. A loading ramp was of advantage, but delayed loading and a skilled team of stretcher bearers became remarkably adept at handing stretcher cases into the aircraft.

In the early days of air evacuation in Burma all returning supply and reinforcement aircraft were used for the purpose of despatching casualties to the advanced base hospital areas. Subsequently a special squadron of Dakota aircraft (No. 62 Squadron and others) was given the primary role of evacuating casualties and flying in reinforcements. It was found that these commitments balanced each other very closely and at all times other aircraft could be utilised in cases of emergency. Full use was also made of the scheduled mail or other services in the rear areas for the purpose of evacuating special or urgent cases.

The airstrips required by these larger aircraft were often constructed by the forward troops, although usually by the special engineer force available for this work. The African division operating in the Kaladan Valley found that it could construct a suitable landing strip, approximately 1,200 to 1,500 yards long and 50 yards wide, in about seven days. Bulldozers and graders were desirable for the making of the level strip which was especially necessary for larger aircraft. Considerable weather proofing of strips was obtained by laying bithess over the carefully smoothed surface. This consisted of hessian impregnated with bitumen and unrolled in long strips each overlapping the other. Pierced metal planking was used in other places.

The ground organisation required for evacuation by transport or ambulance aircraft was essentially similar to that required for the light aircraft.

Air evacuation should be regarded as another instrument placed in the hands of the medical services with which to reduce mortality and morbidity and extend the availability of highly specialised medical treatment. To achieve this, it is essential that the aircraft should be available at the request of the surgeon or physician in charge of the patients. An aircraft is frequently required urgently, and it is essential that at least a proportion of the aircraft allotted for casualty evacuation should be reserved primarily for a casualty evacuation role.

At corps level, where the change from light plane to transport plane usually took place it is desirable to have light aircraft and

medium or heavy aircraft strips in close proximity, for movement of casualties by road can be cut to a minimum, one casualty evacuation unit can thus be in charge of both the reception and despatch, which makes for efficiency and economy, and any priority evacuation cases for special units at the advanced base hospital level can be transferred with minimum delay. Furthermore, liaison with the aerodrome authorities is simplified. The siting of the casualty evacuation unit should ensure easy approach, reasonable safety from enemy attack, adequate shade and shelter, and freedom from the swirling dust caused by aircraft propellers.

The casualty evacuation unit should consist essentially of a medical officer and adequate medical staff to care for the number of casualties anticipated, both on arrival and whilst awaiting evacuation.

The medical officer should be responsible for resuscitation of the cases requiring immediate attention and for expediting the further evacuation of cases destined for special medical centres. Otherwise, sorting and triage at this stage would normally be carried out either in the formation medical centre or by more senior officers with considerable medical or surgical experience.

There should be a staff of trained stretcher bearers for loading and unloading the aircraft and sufficient number of cooks to prepare meals for all types of troops. An attached pool of ambulance cars and personnel is also essential. The accommodation for personnel and patients is usually temporary and, in Burma, consisted of either tentage or bamboo and thatch *basha* construction.

On airstrips serving corps medical centres or an advanced base hospital group, where large numbers of casualties have to be handled, it is essential to have a comprehensive system of air ground control and liaison between the casualty carrying aircraft, flying control, the casualty evacuation unit and the ambulance pool. Otherwise congestion, chaos and delay ensue, not to mention sometimes the entire failure to evacuate patients awaiting evacuation.

The siting of medical centre in relation to the airstrip serving it, was carried out in accordance with the regulations of the Geneva Convention. In the absence of a properly marked strip reserved entirely for medical use, the distance of medical centre from the airstrip must be not less than 1,000 yds. This distance also reduces noise and dust nuisance, but good roads are essential and any greater distance, as occurred at the Comilla advanced base, is a considerable handicap.

An important duty of the air evacuation unit is to ensure the return to forward units of stretchers and blankets on an adequate scale. In practice, this function frequently breaks down and it is essential that a careful watch should be kept on it at the staff level and that adequate forward reserves should be available.

The organisation of air evacuation by medium and heavy aircraft at staff level requires a considerable amount of liaison and



evacuating by air or any other means. In postmortems performed on cases dying after air evacuation infarction of the lung and multiple venous thromboses in the lower limbs were found. Anæmia cases travelled badly by air, although the use of a BLB mask and oxygen would help these patients. Such cases were held until their hæmoglobin was at least 50 per cent. Cases of shock, including secondary shocks in burns, reacted badly to air evacuation. Coronary occlusion before organisation and healing, angina of effort, recent severe hæmorrhage including hæmoptysis and hæmatemesis were other cardiovascular conditions when it was considered unwise to evacuate by air. Also, in the respiratory system, perforating wounds of the chest, pneumothorax and partial or complete collapse of a lobe, were conditions when evacuation by air was not resorted to if it could possibly be avoided. Cases of pneumonia, pleural effusions and lung abscesses stood evacuation well if suitable weather conditions were selected. It is to be expected that chemically gassed patients would react badly to evacuation by air. Abdominal wounds and acute abdominal conditions stand evacuation by air less well than most surgical conditions. Acute suppurative conditions of the middle ear and their internal complications may be aggravated by air evacuation, presumably because of the changes of atmospheric pressure at various altitudes. Gas gangrene was also one of the contra-indications.

When evacuating cases of infectious diseases, it is desirable that such cases be evacuated in isolation, that air crew and attendants be protected by the appropriate inoculations and vaccinations, that arrangements for disinfection of the aircraft be available, that facilities for disinfection and disposal of infectious excreta exist, and that adequate arrangements are made for isolation of the cases at the casualty evacuation units at both the ends of the flight. Personnel who have been in contact with infectious cases during evacuation should be observed by a medical officer for the necessary period laid down for the disease in question.

With regard to documentation it may sometimes be advantageous to distinguish certain types of urgent cases of patients, so that on glancing over a number of casualties they can easily and quickly be picked out. The possibilities here are a distinctive symbol or colour in one corner of the AFW 3,118A or a separate coloured tie-on label. Special markings of the casualties should be reduced to a minimum in the forward areas, owing to the work involved and the probable breakdown of any system if too elaborate. The simple expedient of marking the forehead of a patient with a skin pencil is of value. Symbols such as 'M' for morphia, 'T' for tourniquet, 'S' for sulphonamides, 'P' for penicillin and so on, are sometimes used.

It will be clear from the preceding account that during the campaigns in Burma and South East Asia various modes of evacuating the casualties were developed and fully utilised to bring the wounded and the sick from the forward areas to the hospitals in India. Long distances and the varied nature of terrain, mountains, jungles, *chaungs* and beaches, afforded scope for the employment of every means of

transport, from hand carriage to the use of watercraft and aircraft. The most important, however, was the employment and gradual development of the system of air evacuation of casualties. Beginning from the limited and spasmodic emergency air evacuation forced by the circumstances of the retreat from Burma, involving 1,900 sick troops and civilians, there was by the end of the war in Burma and the South East Asia a large scale and continuous utilisation of aircraft to evacuate casualties. The value of this means of evacuation was realised early after the retreat from Burma, and to reinforce it, there was the experience of air evacuation on the North West Frontier, and during 1942 and 1943 repeated demands were made by Major General T. O. Thompson, then DDMS, Eastern Army and later DMS, ALFSEA, and Brigadiers MacAlvey of the IV Corps and H. G. Winter, DMS Fourteenth Army, for aircraft to evacuate the casualties. But while this mode was not adopted generally, in the First Arakan Campaign and in the first expedition of General Wingate's Long Range Penetration Group, light aircraft and Dakota were used in some measure for the evacuation of casualties. It was, however, in the second expedition of Wingate in 1944, and the Second Arakan Campaign, that air evacuation came to be the established method of clearing the casualties, and a definite system was evolved. To cover the second Wingate expedition, the 1st Air Commando of the USAAF provided three squadrons of light aircraft Nos. 164, 165 and 166, the types used being L5 (Stinson Reliant), L1 (Vultee Vigilant) and C64 (Norseman). Gliders were also used for this purpose, and at the larger airstrips C47 (Dakota) was also employed. Evacuations from the Indawgyi Lake in North Burma were carried out by coastal Command RAF Sunderland flying boats and L1 aircraft fitted with floats. In this manner evacuation of casualties in this rapidly mobile warfare was effected wholly by means of aircraft. By 1944, this method was a well recognised one and during the fight for Imphal and Kohima and later in the quick and victorious drive down the valleys of Burma in the last push against the retreating Japanese, air evacuation played an important part. In these moves air evacuation reached the peak of efficiency and value. The pattern of air evacuation and the organisation developed to achieve it were similar in the various stages of the campaign for the recovery of Burma. Light aircraft strips were constructed behind the advancing troops at intervals of approximately fifty miles and then Dakota transport landing strips were developed at the more important points of the advance. In some places glider evacuation was arranged but it was not found to be very successful owing to the unwieldy nature of these aircraft and the jerkiness of the take off when snatched into the air by the towing aircraft. Light plane evacuation was the first echelon in the evacuation from ADS to CCS and MFTU level. These units were sited in close proximity to the Dakota strips from which the second echelon of evacuation took the longer term cases and those having received major surgical first aid to the advanced base hospitals at Comilla. A third echelon of air evacuation operated on a much smaller scale, conveying some of the very long term cases,

such as those who would not again be fit for forward military service or those who would not be fit for discharge from hospital within three months, from the advanced base hospitals to the base hospital centres in India proper. Much of this third stage of evacuation was carried out by surface routes, as the need for speed in evacuation had usually ended for these patients and economy of aircraft and personal comfort of the patient had become more important considerations.

Moreover rapid advance through many hundreds of miles of Burma had left behind numerous L of C bases and garrisons from which evacuation of casualties was impossible except by air. These were in addition to the many bases and similar L of C bases and garrisons throughout the whole of Assam and Bengal in India, many of which were also difficult of access. The same policy of evacuating longer term sick and wounded and special cases applied throughout the extensive rear L of C areas of the Fourteenth Army, the 36th British Division and the XV Indian Corps. Evacuation by air from these areas was carried out by means of regular aircraft casualty evacuation sorties at agreed intervals, special evacuation on a demand basis, and when possible by means of mail planes and intercommunication aircraft. In some cases a regular allocation of berths was made on mail planes, in others requests were made to the appropriate controlling officer for mail aircraft accommodation which was given high priority.

Further evacuation from rear lines of communication areas to bases in India was frequently arranged as necessity arose. For instance, there was a regular evacuation of special and urgent cases from the Comilla advance base to Calcutta. Evacuation of head injury cases from Comilla to the Bangalore base hospitals was also arranged at intervals. This evacuation saved a surface journey by rail and sea which took anything from one to two weeks, according to the availability of hospital ships for evacuation.

Again, as has been mentioned earlier, at the end of the hostilities in South East Asia in August and September 1945, many RAPWI were evacuated to the hospitals by means of aircraft. The problem of evacuation by surface routes was tremendous. These unfortunate people, the vast majority of them sick and requiring hospital treatment, were scattered throughout South East Asia. Evacuation by hospital ship with the facilities which were then available, would have taken many weeks, if not months, to complete. Hospital ships were used on the main direct and shorter routes, such as from Rangoon and Singapore to India, whilst aircraft were used to evacuate the more remote RAPWI from such places as Saigon in French Indo-China, Bangkok in Siam and the Dutch East Indies. RAPWI were evacuated from the Dutch East Indies to Singapore mostly in Dakota aircraft.

During the fighting in South East Asia in 1944, and 1945, there were 1,78,367 recorded evacuations of casualties by air.

*Air Evacuation Statistics for 1944 and 1945 (January to September)  
South East Asia*

Date	Evacuated by light aircraft from battlefield to corps medical centres	Evacuated by transport ambulance aircraft from corps medical centres to advanced base hospital groups	Evacuated from advanced base hospital groups to base hospitals	Evacuated by transport aircraft from base areas of Bengal and Assam to advanced base hospital groups	Evacuation of sick RAPWI by transport aircraft	Grand totals
1944	2 363*	57 321	5 897			75 581
1945	20 818*	43 113	7,265	13 012	18 578	1,02 786
Total	23 181	1,10 434	13 162	13 012	18 578	1,78,367

\*Figures very incomplete

There were, of course, other evacuations by air in 1942, and 1943, and many others in the subsequent years which were not recorded. It is estimated that probably over 2,00,000 evacuations by air took place during the Burma and South East Asian Campaigns. Throughout these operations only three aircraft are known to have been involved in accidents whilst carrying casualties. A Dakota aircraft crashed whilst taking off at Ramree Island, but no serious injury resulted to the casualties. A second Dakota aircraft carrying twenty-four West African casualties from Arakan to Comilla was lost with all personnel during a monsoon storm. The details are not known. A third Dakota aircraft, about to take off loaded with casualties, was shot at by Japanese gunners who had concealed themselves at the periphery of the airstrip at Meiktila. Some of the casualties were killed and others wounded again within twenty-four hours of their original wounds.

The saving of life and of suffering which can be directly attributed to air evacuation during the campaigns must be very considerable. With the advent of this method, speed of evacuation was increased to an almost unbelievable extent. Time spent in evacuation fell from weeks in 1942, to days in 1943, and finally to hours in urgent and specially selected cases in 1944, and 1945. In the early part of 1945, cases of gunshot wounds of the head were seen arriving at the No. 3 Neurosurgical Unit at Comilla within a few hours of their being wounded from the 36th British Division fighting on the Shweli River in North Burma, from the XXXIII Corps fighting to force a bridgehead on the Irrawaddy, north of Mandalay in Central Burma, from the IV Indian Corps, armoured thrust at Meiktila in Central Burma, and from the XV Indian Corps fighting at An on the Arakan Coast in South Burma. These cases included Gurkha, Indian, British, East and West African troops. One of the shortest times for evacuation observed between wounding and arriving at this unit was four hours in one case arriving from North Burma.

Apart from the fact that the retaking of Rangoon and Burma across the chain of mountain ranges which separate India from Burma would have been impossible without air supply and air evacuation,

the effect on morale of the knowledge that this was the method adopted for evacuation from every corner of Burma was considerable. The other advantage of air evacuation of casualties was that the forces involved in an operation were rendered more mobile as they did not have either to carry casualties with them or leave troops behind to protect them whilst in the hospital ; the hospital cover required in forward fighting areas could be reduced to a minimum, and certain specialist hospitals and specialist medical personnel could be concentrated in one area and made available at an early date after wounding for a wide area of operations. However, the situation in Burma which made all air evacuation not only possible but an absolute necessity was unique and cannot be taken as typical of what future warfare might require. The combination of complete air supremacy and absence of alternative routes for evacuation is not likely to occur frequently.

It is not considered that absolute air command is essential for forward light aircraft evacuation, which can frequently be done at a little more than tree-top height. The possibilities of the use of aircraft marked with Geneva Red Cross emblems, reserved entirely for casualty evacuation, might go a long way toward solving the problem of air command. A corollary of this would be the construction of special airstrips reserved for casualty evacuation alone and protected under the Geneva Convention. This would facilitate the strategic siting of medical airstrips in close topographical relationship with the medical units and hospitals. This would be of immense value in countries like Burma, where communications between the hospital and the aerodrome were often of the most primitive nature. Linked with the marking of casualty evacuation aircraft is the question of properly equipping and staffing air ambulances. These are important points where the attainment of maximum efficiency and comfort in evacuation are concerned.<sup>1</sup>

#### ADMINISTRATIVE ORGANISATION FOR THE RECEPTION AND DISTRIBUTION OF CASUALTIES IN INDIA COMMAND

In the early months of 1942, during the evacuation of casualties from Burma, confusion resulted owing to the difficulties of transportation and communications. All casualties coming from the Eastern Army were then routed *via* Lucknow, where it was deemed essential to have a full time medical officer who could supervise the control of ambulance trains and the arrival and distribution of the casualties. Consequently an appointment of a DADMS (distribution) was created on 9 September 1942, with his headquarters at Lucknow.<sup>2</sup> Up to December 1943, DADMS (distribution) with a small clerical staff was the only officer handling the evacuation and distribution of the casualties from the eastern theatre. It was found that owing to the large numbers of sick casualties from Burma and their subsequent distribution according to the beds available in the Eastern Army and

<sup>1</sup> C/2/50/H(M)

<sup>2</sup> F/2203/H(M)

the Central Command, control by a single officer from Lucknow was difficult. Consequently an additional officer was detailed in January 1943, to control the evacuation and was located at Calcutta. Gauhati was also an important centre for the evacuation of casualties both by ambulance trains and hospital steamers. From May 1942, entraining officers were appointed from amongst those on the staff of the local hospitals. But this arrangement was not satisfactory as the duties were found to require the services of a whole time officer with the necessary staff.<sup>3</sup> Similarly an officer was required at Dandkhundi to take charge of the evacuation of casualties by rail and river and the administration of the ambulance trains and hospital steamers operating to and from that station. Moreover, in order to control and co-ordinate the evacuation of casualties to Chittagong and Dohrazi by road, rail, sea, river and air, and their onward journey to Calcutta an officer had been working in the 354 Sub Area. Experience of medical evacuation and distribution of casualties since May 1942 had shown how essential it was to have a central controlling and co-ordinating organisation, especially when ambulance trains moved between Armies/Command and within operational areas. The change from metre gauge ambulance trains to hospital river steamers and thence to broad gauge ambulance trains demanded a co-ordinating organisation. Although the DADMS working in Lucknow had controlled evacuation within the Central Command, he had no control over evacuation within the operational areas. In order to provide an efficient arrangement for co-ordinating the movement and distribution of casualties from the operational areas, the Medical Directorate considered the provision of GHQ medical distribution staff to be an urgent necessity. The organisation was to operate directly under the Medical Directorate with officers located at selected points over the evacuation system to control, co-ordinate and arrange the distribution of casualties. These officers were to maintain close liaison with the movement control formations in order to be able to advise on all medical matters affecting evacuation and the running of ambulance trains, hospital ships, hospital river steamers *etc*.

The focal points in the plan of evacuation were as follows —

Sirajganj	}	Evacuating and transit centres
Narayanganj		
Cox's Bazar		
Chittagong	}	Main sorting and clearing centres
Gauhati		
Calcutta		
Avadi	}	Main co-ordinating centres
Secunderabad		
Lucknow		
Poona/Aundh/Kirkee	}	Base hospital reception and distribution centres

It was decided to locate a DADMS (distribution) at Calcutta in the Eastern Army and another at Avadi in the Southern Army as senior co-ordinating officers, to control all evacuation and distribution

of the casualties within the Army, as well as their movement to base hospitals outside the Army area. The two points where evacuation problems were acute were Chittagong and Gauhati, and at these points medical officers of the rank of major were to be posted. At other places mentioned above a SC (distribution) or a lieutenant (quartermaster) was to be posted according to the degree of the importance attached to each centre.<sup>4</sup> The organisation designated as GHQ Evacuation and Distribution Staff was finally set up on 12 October 1943. The detailed distribution of the staff was as follows :—<sup>5</sup>

	DADMS (distribution)	Major or Captain IAMC or RAMC	Captain non- medical	Lieutenant quarter- master RAMC	Staff Sergeant RAMC	Sergeant WAC (I)	Clerical havildar grade I	Clerical havildar grade II	Clerical havildar grade III
Calcutta	1	.	.	.	1	1	.	.	.
Avadi	1	.	.	...	1	1	.	.	.
Gauhati	...	.	1	..	.	...	1	1	.
Chittagong	.	1	.	...	.	..	1	1	..
Sirajganj	.	1	.	..	.	.	.	1	1
Narayanganj	.	.	1	.	.	.	..	1	1
Cox's Bazar	...	.	.	1	.	2	.	1	1
Lucknow	...	..	1	...	.	2	...	.	.
Total	2	2	3	1	2	4	2	5	3

With effect from 16 February 1944, GHQ Evacuation and Distribution Staff was also authorised at Secunderabad and Poona. The staff consisted of one lieutenant (quartermaster) RAMC and two sergeants WAC(I) at each station. When the GHQ Evacuation and Distribution Staff was authorised, the fact that an appointment of DADMS (distribution) had already been authorised in the establishment of GHQ Advanced Echelon Assam, was taken into account and the requirements of the staff were accordingly reduced. By April 1944, the control of the Echelon had passed to the Headquarters Fourteenth Army. The evacuation of casualties from the Fourteenth Army railheads or seaheads was the responsibility of GHQ. Consequently, the appointment of the DADMS Advanced Echelon, Assam was transferred to the GHQ on 20 June 1944.<sup>6</sup> In November 1944, it was further decided to develop Dinapore, Ranchi and Jalahali as centres for additional large base hospitals and to post a GHQ Evacuation and Distribution officer in the rank of captain at each of these hospital bases. Each officer was to be provided with two havildar clerks, IAMC. At the same time it was also proposed that the existing appointments of lieutenants (quartermaster) RAMC at Manipur Road, Secunderabad and Poona should be replaced by captains (non-medical). These changes in the staff were sanctioned on 30 January 1945.<sup>7</sup>

<sup>4</sup> F/20018/H(M)<sup>5</sup> F/2203/H(M)<sup>6</sup> F/20018/H(M)<sup>7</sup> F/ 0303/8/H(M)

## HEADQUARTERS HOSPITAL RIVER STEAMERS

Another ancillary establishment to the GHQ Evacuation and Distribution Staff was the Headquarters Hospital River Steamers which was established at Alipore on 10 November 1943. The duties of the headquarters were as follows —<sup>8</sup>

- (i) Control and distribution of hospital river steamers in the Eastern Army area
- (ii) Organisation of evacuation from the field general hospitals to the base general hospitals
- (iii) Organisation of the replenishment of stores for hospital river steamers and hospital trains
- (iv) Maintenance of a depot of supplies from which medical stores, reserve rations, clean linen *etc* could be provided at a moment's notice

The staff authorised for the Headquarters Hospital River Steamers was as follows —

*Officer IAMC or RAMC*

Major	1
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Captain or lieutenant	1
-----------------------	---

*BORs RAMC*

Sergeant	1
----------	---

Private	1
---------	---

*IORs IAMC*

Clerical section havildar grade III	1
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Stores section havildar grade III	1
-----------------------------------	---

Nursing section sepoy	5
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Ambulance section sepoy	6
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The plan for the evacuation of casualties from the operational areas was as follows —

- (i) *Assam* By metre gauge ambulance train to Gauhati, thence by hospital river steamers to Sirajganj. From Sirajganj casualties were evacuated by broad gauge ambulance trains to the base hospitals in the Central Command, or the Southern Army, if necessary.
- (ii) *Arakan* From Cox's Bazar to Chittagong by hospital river steamers. At Chittagong cases requiring evacuation to the base hospitals were sent by hospital ships to Calcutta, while the remainder were retained in Chittagong or evacuated to the field hospitals in the Comilla Dacca area.

At Calcutta the casualties were normally evacuated to the base hospitals in the Central Command but could also be sent to the Southern Army. Overflow cases from Comilla/Dacca area were evacuated *via* Narayanganj or Dandkhandi to Sirajganj by the hospital river steamers.

## SOUTHERN ARMY AREA

Linked with the above was the reception of casualties from the hospital ships at Madras. These cases were transported by ambulance



trains to the hospital transit area at Avadi, where they were sorted. Further disposal was to the field general hospitals in the Southern Army or to the base hospitals at Secunderabad, Poona, or Aundh depending on the type of case and need for treatment at special centres. Avadi was, therefore, the key point in the medical evacuation system in the Southern Army.

#### GHQ ADVANCED ECHELON EVACUATION COMMITTEE

In order that the GHQ should be in close touch with the evacuation requirements of the Fourteenth Army and with the headquarters of transport agencies, an Advanced Echelon of GHQ Evacuation Committee was set up in Calcutta in May 1944. The members of this committee included the following :—

Deputy Director Movements—Eastern.

DADMS (distribution), Calcutta.

Air Transport Officer—When casualties were moved by air.

Sea Transport representative.

The functions of this committee were —

- (i) to allocate ships and ambulance trains to meet the needs of casualty evacuation in and out of the Fourteenth Army area.
- (ii) to co-ordinate the evacuation westward from the Fourteenth Army area by land, sea or air

At the same time a division of responsibility between the Headquarters Fourteenth Army, Headquarters Eleventh Army Group and GHQ regarding the evacuation of casualties was made. The Headquarters Fourteenth Army was made responsible for :—

- (i) distribution and movement of casualties by rail, road, and river to Sirajganj and Chittagong.
- (ii) movement of coastal craft south of Chittagong.
- (iii) air movement in and out of the Fourteenth Army area. The Headquarters, Fourteenth Army, however, was required to give prior information, in case of evacuations to the air fields in India Command to the Advanced Echelon Evacuation Committee,
- (iv) formulating demands to Advanced Echelon Evacuation Committee for evacuation by sea from Chittagong
- (v) providing movement facilities when specially required to enable the GHQ to move casualties *en route* Dacca—Chittagong for sea movement ex Chittagong,
- (vi) making arrangements to meet peak periods of evacuation.

Headquarters Eleventh Army Group was responsible for :—

Submission of periodical forecasts of casualties to the GHQ in order that adequate distribution and movement arrangements could be made.

GHQ was responsible for —

- (i) distribution and movement of casualties by sea, rail, road and river ex Sirajganj and Dacca and by rail and air within India Command,
- (ii) allocation of the necessary movement facilities and capacity on the rail and river lines of communication to enable the Fourteenth Army to carry out its responsibilities

By June 1944, the Headquarters Fourteenth Army had assumed administrative control of the following —

- (i) All metre gauge ambulance trains in their area
- (ii) Headquarters Hospital River Steamers
- (iii) All hospital river steamers
- (iv) GHQ Evacuation and Distribution Staff at Gauhati (since transferred to Manipur Road) Cox's Bazar and Chittagong

#### CONTROL POINTS IN EVACUATION

When patients were evacuated by ambulance train from the transit hospitals in Sirajganj, Calcutta and Madras the ambulance train was routed to a location where a group of hospitals was situated and not to a specific hospital. On the arrival of the ambulance train at its destination, patients were distributed to the appropriate hospitals according to each patient's disability, under the arrangements made by the local administrative medical officer. In most cases the officer commanding the train was not aware of the particular hospital to which any patient carried by him had been admitted. This resulted in incomplete documentation in respect of the sick and wounded personnel evacuated from ALFSEA. In December 1944, the three focal points through which the casualties evacuated ex-ALFSEA entered the evacuation system in India Command were Sirajganj, Calcutta and Madras. Patients arriving at these stations were admitted to the transit hospitals—No 67 IGH(C), No 119 IGH(C) or No 18 BGH and were disposed of as follows —

- (i) *Sirajganj and Calcutta* British patients were evacuated by ambulance trains to the Ranchi group of base hospitals, Indian patients to the Dinapore, Fyzabad, Lucknow, Moradabad, Bareilly and Dehra Dun group of base hospitals and East African and West African patients to East/West African hospitals at Aundh.
- (ii) *Madras (Avadi)* Indian and British patients were evacuated by ambulance trains to the Secunderabad group of base hospitals. Later the group of hospitals at Bangalore was also utilised. East African and West African troops were evacuated by ambulance train to East African and West African hospitals at Aundh.

Certain British patients who required evacuation to the United Kingdom were sent by ambulance train from Ranchi or Secunderabad to Poona for admission to the transit hospital.

Controls, each consisting of two sergeants, from the Headquarters Second Echelon ALFSEA, Jhansi, were established at the evacuation

points at Sirajganj, Calcutta and Madras and the distribution points at Dinapore and Lucknow for Indian troops, Bangalore (Jalahali camp) and Secunderabad for Indian and British troops, Ranchi for British troops and Poona for evacuation of British troops to the United Kingdom. The sergeants were attached to the staff of the medical distribution officer.

At the evacuation points each of the two sergeants from the Headquarters Second Echelon ALFSEA took up control point duties for the echelon. They were required to prepare nominal rolls in quadruplicate showing particulars and parent units of all personnel evacuated to India. Three copies of this nominal roll were handed over to the officer commanding the ambulance train. The sergeants at distribution points received the nominal rolls in triplicate from the officer commanding the ambulance trains, where the name, or number and location of the hospital to which the patient was sent was entered. These completed nominal rolls in duplicate were sent to the Second Echelon ALFSEA. Thus a complete record of the movement of casualties from the operational area to the base hospitals was maintained.

#### ROUTES OF EVACUATION AND EVACUATION POLICY

By 1944, the lines of evacuation from the Fourteenth Army were as follows :—

(i) *Southern Route* .

- (a) By hospital ship or transport from Chittagong to Calcutta ,
- (b) By ambulance trains from Comilla to Dacca ,
- (c) By hospital ship, during certain periods of monsoon, from Chittagong to Dacca (Narayanganj).

(ii) *Northern Route* .

By river steamers from Gauhati to Dacca

In February 1944, the general policy laid down for the evacuation of casualties, from the southern area in the Fourteenth Army was that all the sick and wounded likely to recover within three months were to be evacuated to Dacca, while cases not likely to recover within three months were to be evacuated from the Fourteenth Army direct to Calcutta for subsequent evacuation to the Central Command.

In the northern area, cases likely to recover in three months were to be evacuated from Gauhati by river steamers, (capacity of each approximately 100) to No. 75 IGH(C), Sirajganj.

Cases arriving at Dacca were to be distributed to the hospitals under arrangements made by the Senior Medical Officer, Dacca and SC (distribution). Evacuation from Dacca was by hospital river steamers from Narayanganj to No. 75 IGH(C) at Sirajganj. From Sirajganj evacuation was by ambulance trains to the hospitals in the Central Command.

For cases ex-Fourteenth Army, No. 75 IGH(C), Sirajganj, acted solely as the transit hospital. These cases except those unfit

to stand a journey to the Central Command were not, at that time, admitted to hospitals in the Eastern Command. This step was considered important in order that the hospitals in the Eastern Command should be kept as empty as possible to provide sufficient beds for cases from river steamers from both the northern and southern routes pending evacuation by ambulance trains.

In Calcutta cases from Chittagong were received at No 47 BGH (400 beds) and IMH Alipore (400 beds). These beds were maintained solely for cases in transit.

As regards the Eastern Command, the medical arrangements were self-contained as far as hospital provision for the troops in the command was concerned. However, the following types of special cases were evacuated to the Central Command:

- (i) sick and wounded recommended category C 2 or E,
- (ii) orthopaedic cases and those requiring artificial limbs,
- (iii) any other special types of cases for which treatment at a base hospital was essential.

By April 1944, the final arrangements for the evacuation of casualties were that SFAC would be responsible for all evacuation forward of railheads, both in Assam and Arakan, and for evacuation by sea forward of Chittagong. Arrangements for the evacuation of casualties to India from overseas theatres were similarly the responsibility of SEAC who placed demands for the necessary hospital shipping through GHQ in accordance with the requirements of the operations planned.

GHQ, on the other hand, was responsible for the operation of all ambulance trains, including metre gauge trains east of the Brahmaputra, and the control of the hospital river steamers on the Brahmaputra and all hospital ships.

On the scale of 200 patients per broad gauge ambulance train, it was estimated that one and a half trains per day would be required. The turn round between Lucknow and Calcutta or Siryganj was six days and thus nine trains were required for this task.

For further distribution of casualties to the other base hospitals in the Central Command at Bareilly, Moradabad and Dehra Dun an additional train was required, bringing the total requirements for the Eastern Command and Central Command to ten broad gauge ambulance trains.

Forward of the broad gauge railheads, the load was divided between Assam and Arakan. It was estimated that 150 patients daily might have to be evacuated from each of these two fronts.

*Assam.* The hospital river steamers plying between Gauhati and Siryganj were each capable of taking 100 patients. Thus one and a half steamers were required every day. The turn-round on this route was five days. It was calculated that a total of eight steamers was required. In April 1944, five steamers were provided. By the end of the war the total number of river steamers provided was twelve.

Forward of Gauhati evacuation was by metre gauge ambulance train from Manipur Road which entailed a two days' turn-round. Each metre gauge ambulance train took 120 patients so that five ambulance trains were required every  $\frac{1}{2}$  days.

*Arakan* : From Chittagong it was necessary to evacuate 150 patients daily by sea to Calcutta. The turn-round on this trip was 6 days, so for this task three hospital ships with an average capacity of 300 were required. In April 1944, the ships available were *Melchior Truëb* (capacity 300), *Wu-Sueh* (capacity 250). *Wu-Sueh*, however, could not operate during the monsoons. Metre gauge ambulance trains for the Arakan front were required on the route Dohazari (railhead)—Chittagong—Comilla—Dacca for the evacuation of casualties to the field general hospitals. It was estimated that four trains were required. At that time six meter gauge trains were operating east of the Brahmaputra. One of these trains was later moved to Southern Army.

*Overseas Theatres* : Casualties from the Middle East and Persia and Iraq Command were received in India either at Karachi or Bombay. In the former case the base hospitals at the port were sufficient for the requirements, and it was unnecessary to provide ambulance trains to meet the hospital ships.

Casualties arriving in Bombay required transportation to the base hospitals in Poona or Deolali. One ambulance train was required permanently in Bombay—Poona area for this task and other internal requirements.

The main port of disembarkation for the cases arriving from SEAC was Madras, from which point casualties were distributed to the base hospitals in Secunderabad and Bangalore.

A transit hospital of 1,200 beds had been established at Avadi, twelve miles from Madras, for the reception of those cases too ill to proceed further and to act as a reservoir in the event of a large number of casualties having to be disembarked at short notice. Further, an additional site for a 600 bed hospital at Avadi was also prepared to provide for additional transit accommodation to meet the requirements of a particular operation.

The turn-round of ambulance trains between Madras and Secunderabad was three days and between Madras and Bangalore thirty-six hours. It was estimated that seven ambulance trains would be required for transporting the casualties from the Southern Army.

The total broad gauge ambulance train requirements for India were ten for the Eastern Command and Central Command and eight for the Southern Army including internal requirements.

In April 1944, there were only twelve broad gauge ambulance trains in India. By July 1945, the number had increased to thirty-three.<sup>9</sup>

<sup>9</sup> H 3 267H(M).

By May 1944, the system for the evacuation of casualties had been stabilised and arrangements were made in the Eastern Command for the treatment of the Fourteenth Army cases likely to recover within eight weeks, at the Dacca group of hospitals

Cases unlikely to recover within this period were evacuated to the Central Command through the transit hospitals mentioned below —

	<i>Indian troops</i>	<i>British troops</i>	<i>Total</i>
Sirajganj, No 67 IGH(C)	500	200	700 (crisis expansion 1,000)
Calcutta, IMH Alipore No 47 BGH	500	500	500 500
Total	1,000	700	1,700

The primary factor that operated in the evacuation of casualties throughout was that the care and welfare of the individual was of first importance. These considerations were, however, conditioned by operational requirements and the maintenance of manpower.

The policy by 1945, was that all cases likely to be available for return to duty at an early date were to be retained in the Eastern Command and later in the Lines of Communication Commands. All chronic cases and those requiring prolonged treatment were rapidly evacuated, if fit to move.

#### SORTING POLICY

To facilitate sorting, cases were divided into seven classes <sup>10</sup>

The success of any evacuation and distribution system rests on the efficient sorting of cases at the very commencement and at all stages throughout the chain of evacuation. Therefore in every medical unit treating patients one medical officer was appointed to choose cases for evacuation. Where they existed, the officers in charge of medical and surgical divisions, and, in their absence, medical and surgical specialists, were selected for this duty.

In January 1945, the Headquarters ALFSEA laid down that casualties likely to be fit to rejoin their units within twenty-one days should be held in the forward field medical units, i.e., field ambulances, CCSs, MFTUs, etc. As stated above in the advanced base hospitals cases were held up to three months. Casualties not likely to get well within three months were evacuated to the base hospitals in India at the earliest opportunity <sup>11</sup>

<sup>10</sup> Transports raised during the war for the evacuation of casualties are shown in Appendix XVIII. Classification by types of disease, injury and hospital and transport facilities provided are shown in Appendix XIX. L(11/1/H(M)

<sup>11</sup> I/8902/5/H(M)

## CHAPTER XIV

# Hospital Accommodation

### EVOLUTION OF THE HOSPITAL SYSTEM FOR INDIAN TROOPS

Prior to 1906 the treatment of Indian soldiers was carried out in regimental hospitals. Under this system the treatment of patients was organised locally in non-dieted regimental hospitals. The medical staff generally consisted of one medical officer, one sub-assistant surgeon a few ward orderlies and followers drawn from the combatant units. Over-all control was vested in the officer commanding the regiment. These regimental hospitals were in no respect adequately equipped or self-contained ; the scale of furniture and equipment was very meagre and hospital clothing was not provided. The patient brought his own bedding. Rations were obtained from the unit and were supplemented by such medical comforts as were specially ordered for him. These hospitals were not only comfortless in the extreme but also there were many shortcomings as regards furniture, equipment, *etc.*, which prejudiced the success of treatment very seriously. In short, the regimental hospital was just a name for a glorified medical inspection room. This system of treatment was limited to the Indian soldier only. The British soldiers were treated in relatively well equipped station hospitals.

Proposals for the introduction of the station hospital system were put up in 1880, 1883, 1886 and 1891. These were rejected either on account of their impracticability or for financial reasons. It was felt at that time that station hospitals were not suited to the Indian troops. It was not until 1906, that combined regimental hospitals for Indian troops were introduced. This was a compromise designed to make good the defects of the former system while at the same time maintaining its essential features. The sick were thus treated in a central hospital under regimental arrangements. Administration was placed under a senior regimental medical officer but the disciplinary control over medical officers and subordinates remained, as before, in the hands of the officer commanding the regiment. This organisation resulted in anomalies, as at times the medical officers doing duty at a station might all be very junior in rank, while at other times all might be senior medical officers. It afforded no opportunity of ensuring that the most capable officers were selected for the higher and more responsible positions. It was not economical in respect of personnel or equipment, since each regimental hospital was separately maintained.

In 1910, a committee was appointed to re-examine the question of the hospital treatment of soldiers. This committee recommended the abolition of the regimental hospital system, the raising of an Indian Army hospital corps and of a corps of ward orderlies to take the place of regimentally enlisted men. The Government of India after considering the proposals carefully expressed their inability to

accept them for financial reasons. The question of giving effect to the recommendations of this committee was again raised in 1912, but no decision had been reached when World War I broke out in 1914, and its further consideration was postponed.

During World War I, 53,270 hospital beds were provided in India. This number included 660 beds for officers, 31,820 for Indian troops, 20,790 for British troops. In addition 2,440 beds for an enteric-convalescent depot were provided.<sup>1</sup>

As a result of the report of the Mesopotamian Commission, and at the instance of the Secretary of State, the question of introducing the station hospital system for Indian troops was once more considered towards the beginning of 1918 and the system was finally introduced in the Indian Army with effect from 1 December 1918.<sup>2</sup> The main changes effected by the introduction of this system were briefly as follows —

- (i) The abolition of regimental and followers' hospital and the substitution, in each station, of a station hospital in which all Indian personnel, both troops and followers, who were sick in a garrison were treated.
- (ii) All hospital arrangements for Indian troops and for regimental and departmental followers were brought under one administrative control which was exercised by the officer commanding the Indian station hospital. Officers of the IMS, who commanded and administered the hospitals, sub assistant surgeons and subordinate hospital establishments were no longer attached to Indian regimental units but formed part of the establishment of the hospitals. Officers commanding all first class and a few specially selected hospitals of a lower class were appointed by the DMS in India. Commanding officers of the remaining hospitals and seconds in command of all first and second class station hospitals were appointed by the DDMS.
- (iii) The hospital establishment was recruited by the officer commanding the hospital instead of being passed through regimental channels.
- (iv) The sick in hospital were provided with the hospital diet by the State. In addition to the 'extras' that were formerly provided, they were also given appropriate clothing and bedding.
- (v) The effect on an IMS officer was that instead of his being one of the officers of a regiment, he was then an officer in what was developing into a "corps".
- (vi) The general effect was the more efficient treatment of the sick in a central hospital, better staffed and equipped, and with an organisation suited to the conditions which prevailed in war.

To facilitate the distinction between hospitals for the Indian and British troops, those for the former were called Indian station hospitals while those for the latter were styled British station hospitals.

In all 148 station hospitals were established in the whole of India including Burma. These comprised 64 first class, 13 second

<sup>1</sup> H/4/32/H(M)

<sup>2</sup> A/5/39/H(M) A/7/38/H(M) and A I (I) 1343/1918



class, 18 third class, 19 fourth class and 34 fifth class hospitals. Classification was based on the total strength of the Indian troops and followers forming the garrison :—

- First class : for 3,000 and over.
- Second class : for 2,000 and over.
- Third class : for 1,000 and over.
- Fourth class : for 500 and over.
- Fifth class : for under 500.

#### INDIAN FAMILY HOSPITALS

In the year 1928/1929, Indian child and welfare centres and family hospitals were established by a number of units of the Indian Army. The only assistance provided by the Government to these hospitals was the provision of drugs and dressings from Indian station hospitals. All other expenses were met from private subscriptions, grants and donations. These hospitals were established under the Indian Army Maternity and Child Welfare Scheme, which was in operation at that time. The idea of creating Indian military families' hospitals or rather wards, attached to Indian station hospitals on lines identical to those existing in the institutions for women of British units, was for the first time suggested in October 1929, by Brigadier Donald Robertson, DSO, of the 9th (Jhansi) Infantry Brigade, to the then C-in-C.

The C-in-C took a keen interest personally in the suggestion and the establishment of a child welfare hospital for the families of Indian troops at Peshawar was sanctioned on 15 January 1930. A portion of the old Indian military hospital was allotted for this purpose. The general scheme of establishing family hospitals could not, however, progress speedily. The main consideration was the expense, especially at a time (early thirties) when the financial position of the country was not very sound. What was actually done was to increase the number of female sub-assistant surgeons from 6 to 12, and these were posted to units which had established a family hospital on their own initiative.<sup>3</sup>

#### EXPANSION DURING WORLD WAR II

By August 1939, the total number of authorised hospital beds was 6,077 for Indian troops and 5,044 for British troops, including 840 beds for British families. Even in the early stages of the war the responsibility of the medical services for tending the sick and wounded had assumed a form far out of proportion to their normal peace time commitments. The reception and treatment of the casualties from overseas forces, based on India, and medical cover for the expanding garrisons in India had to be catered for. Limited transport facilities and the vast size of India complicated the problem further. It could be solved only by providing hospital beds on a large scale. Wastages

<sup>3</sup> F/Z-8132/H(M)

from malaria alone demanded a large number of hospital beds<sup>4</sup> In the initial stages the urgent need for hospital beds was met by an almost uncontrollable growth of the peace time garrison hospitals throughout the country, especially in Bombay and Poona (Southern Army) This started a vicious circle as personnel were required for station hospital expansion, which interfered with the raising programme of the urgently required field medical units, and this in turn involved further expansion of the garrison hospitals It was, therefore, imperative that proper plans be drawn up for the hospital treatment of casualties from overseas theatres and from the expanding garrisons in India

The hospitals required in India were for the following purposes —

- (i) Peace hospitals, primarily intended for the treatment of the normal sick of local garrisons These expanded their beds *pari passu* with the expansion of the garrisons which they served, up to a minimum of 3 per cent of the strength of Indian and 5 per cent of the strength of British troops
- (ii) Field general hospitals were provided for every formation in India or raised in India on a scale to deal with all the sick and battle casualties which required *not* more than three months' hospital treatment These were provided at 10 per cent of the strength of the force, in accordance with the Field Service Regulations Experience in the Middle East had shown that provision of 10 per cent for forward troops and 8 per cent for the L of C and base installations was adequate This percentage catered for both sick and battle casualties In the later stages hospital accommodation for the field force was also provided in the field hospitals, beach medical units and MFTUs
- (iii) Base hospitals were formed to treat the sick and wounded, requiring over three months' hospital treatment, Indian troops of all formations whether operating in India or overseas, and for British troops of the formations operating in India or operating outside India but based on India Up to the end of June 1942, the scale adopted for the provision of base hospital beds was 3 per cent of the total strength for Indian and 4 per cent for British troops Later experience in war had shown this to be over generous A bed percentage of  $1\frac{1}{2}$  per cent of the overseas force plus  $\frac{1}{2}$  per cent for internal garrisons in India for Indian troops and  $2\frac{1}{2}$  per cent of the overseas forces plus  $\frac{1}{2}$  per cent for internal garrisons in India for British troops was considered adequate The lower figure for Indian troops was due partly to their lower sickness rate in the tropics and partly to the more speedy disposal of those invalided out of service
- (iv) Hospital accommodation for the RAF, IAF, RIN and RN was provided on a scale which varied from time to time in peace hospitals, base hospitals and other types of field medical units
- (v) Hospital cover for the labour employed on military projects in peace and field hospitals
- (vi) Hospitals for the POW

<sup>4</sup> H/3/26/H(M)

- (vii) Convalescent depots were also required for such personnel as were fit to be discharged from the hospital but were not yet fit to rejoin their units.

Up to the end of 1941, the procedure was comparatively simple. Peace hospitals dealt only with the sick in their stations ; field general hospitals were raised while their divisions or independent brigade groups were forming and accompanied their formations overseas and base general hospitals remained in India and only received casualties which were brought from the forces overseas. Early in 1942, the situation altered in two respects :—

- (i) The serious and progressive deterioration in medical recruitment set back the programme of providing field general hospitals and other non-divisional medical units.
- (ii) With Japan adopting an aggressive attitude it was realised that the formations might have to operate within or just outside the boundaries of India.

In view of this it was visualised that every military hospital in India might have to receive casualties from the battle areas in or near India, while the base hospitals would continue to receive casualties from overseas. Consequently it was decided that the peace hospitals throughout India should supplement the field general hospitals. Hence the plans then drawn up for the hospital treatment of casualties were as follows .—

*North Western Army*

Casualties were to be treated in the military hospitals in the area.

*Eastern Army*

Surplus casualties were to be evacuated to the Central Command.

*Southern Army*

Casualties were to be dealt with by the base general hospitals in the Bangalore and Poona-Kirkee-Ahmednagar areas.<sup>5</sup>

This broad basis of planning was followed throughout the war. In 1944, sufficient beds were not available to meet the requirements of the Indian troops in India, and consequently there was very considerable overcrowding in the garrison hospitals. The base hospitals for Indian troops were full and had the military situation not improved the military medical services would have been hard pressed indeed. Occasionally there were empty beds in some of the large hospital towns but on account of the distances involved their use was limited. Further a military hospital of 1,000 bed capacity could not adequately treat 1,000 patients under normal conditions. In actual fact the hospital staff was fully occupied if the hospital was filled numerically only up to 70 per cent. of its capacity. The reason was that military hospitals, with a few exceptions, were 'general purpose' hospitals and had, of necessity, to provide separate accommodation for officers, nursing officers and Indian and British other ranks. In addition, special

<sup>5</sup> F/6232/H(M)



		1939		REMARKS
(A) <i>Hospitals</i>		IT	B	
I. Base general hospitals				
Field general hospitals	1,600			
Section general hospitals	100			
Indian beds with British general hospitals				
II Total	1,700			
III. Field hospitals and beach medical units				
IV Malaria forward treat- ment unit				
V. Garrison military hospitals	(a) 6,077		(b), (c), (d) and (g) August ) November and September ) July.	
Total	7,777			
Grand Total (1)	12,821			
(B) <i>Convalescent depots</i>	500			*Includes 250 beds for officers †Includes 450 beds for officers, twenty for women officers, and eighty for women other ranks
Total (2)	500			
(C) <i>POW hospitals</i> Beds for administration and guards Beds for POW				
Total (3)				
Grand total, (1), (2) and (3)	13,321			

NOTE —These figures do not take into acco

accommodation had to be put aside for the treatment of certain diseases such as dysentery, mental or infectious diseases, *etc*, where special precautions and accommodation were necessary. It is obviously impossible to plan that at a particular time every one of the special departments of a hospital shall be filled by the correct number of patients. It can happen that when several sections are half empty several others can be overcrowded. Further in India the extent, to which the seasonal incidence of disease and consequently the hospital requirements vary is considerable. The medical plan had, therefore, to be designed to cover the periods of maximum disease incidence, which occurred in the months of August, September and October <sup>6</sup>

#### ACCOMMODATION

Another difficulty in the provision of hospital beds was accommodation. Standard designs for hutted and sheltered construction for all hospital buildings were constantly under revision. Two factors continuously affected the provision of satisfactory accommodation for all troops <sup>7</sup>

- (i) Many hospitals during the war were built in times of emergency when the desired material, other than what was locally available, was almost non-existent, and owing to urgent demands for work and the short supply of material it was not possible to rebuild those hospitals.
- (ii) The demand for proper accommodation was so urgent as to necessitate construction while the hospital was under canvas at the same site and the work could not be delayed till the desired building material was available.

The type of accommodation used for the hospital in India was —

Hospital buildings proper, *i.e.*, pre-war construction

Hutted accommodation, *i.e.*, war time construction

Permanent pre-war barracks accommodation

*Basha* construction

Other buildings, *e.g.*, schools and other institutions *etc.*,

Tents

Military hospitals in India during 1939-45 were called upon to treat approximately 45,68,393 sick and wounded from the greatly expanded Army in India and the overseas and from the forces arriving in India and the east. The number of patients evacuated from the field units to the hospitals in India was over a quarter of a million from the eastern theatre and approximately 40,000 from the Middle East and Persia and Iraq Command. Medical arrangements were also made for approximately 70,918 PsOW<sup>8</sup> and internees. To accommodate all these casualties and sick PsOW nearly 1,97,539 hospital beds were provided, as shown in the table appended.

<sup>6</sup> F/6206/9/H(M)

<sup>7</sup> F/5911/9/H(M)

<sup>8</sup> POW/3/29/H(M)

This total is in astonishing contrast to the number of civil hospital beds, which was less than 73,000, provided for the whole population of British India at the time. This large increase in the provision of beds and medical assistance resulted in the expansion of the various categories of hospitals in India.

#### PEACE MILITARY HOSPITALS

The provision and sanction of hospital beds for the garrisons in India was the responsibility of the Medical Directorate, GHQ, till May 1942. But this centralisation of authority could not facilitate the expansion of the static hospitals. Consequently, in May 1942, authority was delegated to the GOCs-in-C Armies/Commands, for the duration of the war, to provide locally, within their powers of sanction, extra hospital beds on the scale of 3 per cent. for the total garrison strength for Indian troops and 5 per cent. for British troops and to cater for any increase in the garrison strength by expanding the existing hospitals wherever possible, or by constructing new hospitals if necessary. They were also authorised to build for future needs provided the cost was not above one lakh of rupees, in which case the proposal had to be referred to GHQ. This authority, however, did not embrace hospitals established to receive casualties under the defence scheme or hospitals for special purposes.<sup>9</sup>

In August 1942, owing to the acute shortage of medical personnel and the difficulty in recruiting them, it was found necessary to amalgamate certain selected BMHs with other hospitals, especially with the BGHs from the United Kingdom, in India. By this means it was hoped to eliminate duplication of staff in the same station.

The officer commanding the incorporating hospital was made responsible for, and had under his control, all the hospital arrangements for the British troops in the area. He was also responsible for staffing the two hospitals to the best advantage.<sup>10</sup>

In July 1943, a review of the hospital accommodation in India was carried out to determine the extent to which both the internal and external commitments could be met in the event of the field force being involved in operations outside India. Estimated requirements then were 35,270 beds for Indian troops and 5,839 for British troops. Actual beds available at the time were 36,599 for Indian troops and 9,496 for British troops. Thus there was an adequate margin of beds for British troops but the total of beds for Indian troops was only slightly more than the basic requirements.<sup>11</sup>

At the same time a revised war establishment for station hospitals was also issued; these were then designated garrison military hospitals. Moreover, the names 'Combined Indian Military Hospitals' and 'Combined British Military Hospitals' were applied to the hospitals with both Indian and British wings, the appellation

<sup>9</sup> F/6232/H(M)

<sup>10</sup> F/6623/H(M)

<sup>11</sup> F/6339/H(M)

depending on the greater numerical strength of a particular wing. But if the two wings were of approximately the same size the hospital was named 'Combined Military Hospital'. These distinctions were likely to cause confusion, particularly when expansion might affect only one of the wings. Consequently all combined hospitals were then designated as 'Combined Military Hospitals' irrespective of the relative sizes of the two wings.

In August 1943, the difficulties inherent in leaving the control over the expansion and modification of the hospital accommodation to the GOCs in C were realised. It was felt that the alterations were so frequently made that it was difficult to know precisely the authorised bed strength of any hospital at any time. This caused considerable inconvenience to the Medical Directorate which could not be in possession of information of vital importance for the purposes of planning. The Medical Directorate was also faced with demands for staff and with a series of disconnected proposals for expansion, each considered on its local merits, on the ground that these could not be provided from the resources of the Army/Command. It was, therefore, considered necessary to reinvest the Medical Directorate with the ultimate control of the size of the garrison hospitals.<sup>12</sup>

Armies/Commands were further directed to notify the Medical Directorate whenever action was taken to form a new garrison hospital or to make alterations in an existing one under the authority vested in the GOC-in-C in May 1942. It was also emphasised that the static and permanent garrisons in India should have an adequate provision of beds in garrison hospitals. The base general hospitals were not to be utilised to meet these requirements without the explicit sanction of GHQ as otherwise sufficient beds were not expected to be available for war casualties in the base hospitals when these might be called upon to assume their proper role. With regard to non-static troops the principle was that these should normally be treated in the field general hospitals.

The exigencies of the war led to a continuous increase in the bed strength of garrison hospitals.

Till March 1944, hospital accommodation for static troops in India, in general, continued to be provided on the basis of 3 per cent for Indian troops and 5 per cent for British troops. In the Eastern Command and the Fourteenth Army, however, it was found necessary to raise the scale to 4 per cent and 6 per cent respectively or even to 5 per cent for Indian troops and 7 per cent for British troops in certain stations, on account of a high sickness rate mainly due to malaria. Moreover, there were indications that this scale might have to be extended to other areas, especially in the Central Command and Southern Army, where normal hospital provision was found to be inadequate to meet the rush of casualties during the peak periods of sickness, or owing to their being important points in transit. But the increase was limited to the provision of additional accommodation.

<sup>12</sup> F/15106/H(M)



and equipment and did not include staff. It was estimated that an additional 14,000 beds for Indian and 5,000 for British troops would have to be provided by the end of the year. A greater part of these beds was to be provided by expansion in existing hospitals.<sup>13</sup>

In September 1944, it was estimated that the requirements of garrison hospital beds would be 33,690 for Indian troops and 7,230 for British troops (excluding RAF). Some surplus beds for both Indian and British troops were available. But, in view of the large number of hospitals involved, and the fact that the garrison hospitals in some stations were frequently called upon to accept casualties from the troops in transit, it was felt that it would be impracticable to effect any reductions. The actual number of garrison hospital beds available throughout India represented, in fact, a bed cover at slightly more than 3.5 per cent. a figure which was not considered to be excessive. Moreover, of the 43,658 beds for Indian troops available in the garrison hospitals throughout India, approximately 41,000 were occupied.<sup>14</sup>

By 30 June 1945, it had become necessary to obtain sanction to raise the provision of hospital accommodation to 4 per cent for Indian troops of the garrison strength, where necessary in India Command with the exception of the North Western Army.<sup>15</sup> This involved considerable expansion.

The authorised number of beds in the garrison hospitals from August 1939, to August 1945, was as follows.—<sup>16</sup>

	<i>Indian</i>	<i>British</i>	<i>Total</i>
August 1939	6,077	5,044	11,121
September 1940	6,606	4,876	11,482
August 1941	12,651	5,237	17,888
September 1942	25,307	6,928	32,235
November 1943	10,903	39,068	49,971
March 1944	12,475	41,231	53,706
July 1944	13,496	43,658	57,154
March 1945	45,279	19,383	64,662
August 1945	46,329	19,467	65,796

#### FIELD GENERAL HOSPITALS

Field general hospitals were raised in accordance with the requirements of the field force. Experience had shown that it was necessary to provide accommodation in the field general hospitals, on the lines of communication immediately in support of the field formations, at 8 per cent for Indian troops and 10 per cent for British troops. In the earlier stages of the war these units were raised as Indian general hospitals for Indian troops [IGH(IT)], for British troops [IGH(BT)] and as combined units for Indian and British troops

<sup>13</sup> H/3/26/H(M)

<sup>14</sup> F/6202/1/H(M).

<sup>15</sup> A/7/33/H(M)

<sup>16</sup> A/2/19/H(M), F/6232/H(M), A/4/18/H(M),  
F/15186/H(M) and F/5911/9/H(M)



A TENTED INDIAN GENERAL HOSPITAL IN MIDDLE EAST

PLATE



[IGH(C)], according to the composition of the force. Later, it was considered desirable that hospital accommodation should, as far as possible, be in the form of a combined hospital for both Indian and British troops in order that no administrative difficulties should arise in the reception of either Indian or British casualties. Steps were taken in September 1943, to organise the hospitals in accordance with this policy and by March 1944, the reorganisation had been completed. In addition to the field general hospitals raised in India for Indian or British troops, formations arriving from the United Kingdom, East Africa and West Africa also came with their quota of field general hospital beds.<sup>17</sup>

A total of 50,085 beds for Indian troops and 11,950 for British troops was provided in the field general hospitals by August 1945.

#### INDIAN FIELD HOSPITALS

It was realised in the early months of 1943 that an improved type of staging section with a considerable degree of mobility capable of accommodating 100 (25 Indian and 75 British) patients and of providing emergency surgical treatment was necessary. The unit was named Indian Field Hospital. It was required for isolated air fields, remote from other medical units, and to act as a beach medical unit during combined operations. In order to allow for elasticity and unforeseen local changes 50 of the British beds were also so equipped as to be able to take Indian troops, if necessary. Four such units were raised on 15 June 1943, and a fifth was raised on 15 September 1943.<sup>18</sup>

#### INDIAN BEACH MEDICAL UNITS

Experience gained by June 1944 had shown that the working of an Indian field hospital unit in so far as the operations on a beachhead were concerned, was generally inadequate for the task it was required to perform. In actual practice personnel borrowed from other units had to be attached to these units during operations. The unit was expected to hold and treat casualties and undertake major surgery until such time as evacuation from the beach was possible. Further, the unit was responsible for all medical problems *viz.*, hygiene, sanitation, evacuation *etc.*, arising on a beachhead. Consequently, a new unit—the Indian beach medical unit—capable of treating 50 Indian troops and 150 British troops—was introduced. Two existing Indian field hospitals were reorganised to form two beach medical units in September 1944. A third beach medical unit was raised on 25 April 1945.<sup>19</sup>

#### INDIAN MALARIA FORWARD TREATMENT UNITS

Of the various problems facing the military medical services malaria was the most formidable. Following the evacuation of Burma

<sup>17</sup> H/326/H(M)

<sup>18</sup> F/2309/H(M) F/3601/84/H(M)

<sup>19</sup> F/3601/2/H(M)

the incidence of malaria among the troops was such that despite 'the crisis expansion' of hospitals which was undertaken, it became impossible to provide accommodation for the large number of malaria casualties. Statistics from the Eastern Army alone showed that in 1942, 83,000 cases of malaria were actually admitted to hospital. During the months October to December 1942, 18,000 casualties were evacuated out of the Eastern Army, most of these suffering from malaria. Out of a total of 26,716 casualties during the period September 1942 to April 1943 in Arakan, 15,435 (58 per cent.) were due to malaria. Treatment of malaria casualties in the garrison areas and on the lines of communication presented no difficulty as the patients were admitted to the nearest hospital. In the forward operational areas, however, the patient was less fortunate. He was at times, during the febrile period of his illness, compelled to undertake an uncomfortable journey, over a difficult and lengthy line of communication, which lasted anything up to three or four days before he could reach the hospital where his treatment was to be carried out. By the time he reached the well-equipped and well-staffed unit he was no longer sick. He was probably exhausted because he had been travelling when logically he should have been in bed; paradoxically when the bed accommodation was available it was no longer really necessary. The effect of a large influx of this type of partially recovered cases of malaria made the hospitals work constantly on a basis of crisis expansion and that inevitably led to a lowering of the standard of treatment which it would otherwise have been possible to provide for the seriously sick and wounded. Moreover, when the call came for evacuation to make room for fresh arrivals it was the relatively fit, partially treated, malaria cases who were pushed a further stage to the rear simply because they were the men who could most readily undertake a further journey. This process, repeated from link to link in the chain of hospitals, resulted in the unfortunate malaria patient finding himself in a stream of evacuation traffic which ultimately carried him hundreds of miles away from his unit. To meet this problem it was suggested that a new type of unit be formed to deal solely with the cases of malaria occurring in operational areas. The unit was to be called an 'Indian Malaria Forward Treatment Unit' to distinguish it from a hospital. It was to be a combined unit capable of treating 480 Indian and 120 British patients, of operating as a field unit filling a role equivalent to a CCS, and of providing skilled medical attention together with the necessary laboratory service to ensure facility and accuracy in diagnosis and prognosis.<sup>20</sup> Four MFTUs were raised on 1 November 1943, and by February 1944, the number had increased to sixteen.

#### INDIAN BASE GENERAL HOSPITALS

Prior to 1939, no base hospitals were in existence in India. In the initial stages of the war the reception and treatment of overseas

<sup>20</sup> F/17510/H(M), F/3601/86/H(M)

casualties was arranged in the existing garrison hospitals in the Southern Army. This, however, was not a satisfactory arrangement as the garrison hospitals naturally were not fully equipped to receive a large influx of casualties. Consequently, to meet this need base hospitals were established, these were intended to serve the requirements of the following troops —

- (i) Field army, including both overseas and overland components, and including British divisions which passed through India
- (ii) Balance of the Army in India, including troops required for frontier defence and internal security
- (iii) IAF and RAF overseas component
- (iv) Balance of IAF and RAF based on India

These units were static and did not move out of India, and were provided with excellent hospital accommodation and equipment<sup>21</sup>. Their location corresponded with important rail or road junctions, the hospitals were large and thus economical from the point of view of personnel, of which there was an acute shortage. Initially, six Indian base general hospitals (IBGHs) were established, one each in Poona, Deolali and Bombay on 24 July 1940, Kirkee on 2 September 1940, and two in Karachi one on 16 November 1940, and the other on 1 April 1941. The overall bed strength of these hospitals was 4,200 beds for Indian troops and 3,500 beds for British troops. The hospitals at Deolali and Bombay were later converted into garrison hospitals. In October 1941, Maharaja of Bikaner offered to maintain 400 beds for Indian overseas casualties but the officer commanding was to be provided by the military authorities. The offer was accepted and the hospital was established in Bikaner State<sup>22</sup>.

In November 1941, it was estimated that the number of troops in Iraq-Persia by the summer of 1942 would increase to six Indian and four British divisions and thirty squadrons of the RAF. The anticipated number of casualties arriving in India from all theatres of operation in any one month was calculated to be —

	1 April to 30 September	1 October to 31 March
Indian	5,617	4,213
British	6,757	4,565

It was considered that on an average patients would require treatment for six to eight weeks before their return to duty, which might be classified as follows —

Indian—One month in a hospital plus two weeks only in a convalescent depot as the Indian soldier could be sent to his home on leave before he was finally fit.

British—One month in a hospital plus one month in a convalescent depot.

<sup>21</sup> H/3/ 6/11(VI)

<sup>22</sup> F/Z 22018/11(VI)

Based on these estimates, the situation in respect of the requirements of base hospital beds in India for all cases from overseas including British cases, if it were decided that India should keep them on account of the shipping difficulties precluding their being sent to South Africa, was as follows —

	<i>Requirements</i>	<i>Sanctioned</i>	<i>Deficit</i>
Indian	5,650	5,600 <sup>23</sup>	50
British	6,750	3,500	3,250

To provide adequate hospital cover for British forces from the United Kingdom a proposal was made to build a 'hospital town' near the village of Takwa Badrukh, eight miles from Poona, to accommodate 7,800 beds. The scheme was called 'Hospital Town Churchill' and was initiated in November/December 1941. However, after preliminary surveys *etc.*, the scheme was finally abandoned in August 1942, owing to the various difficulties involved. The situation was further reviewed in June 1942. The strength of the forces in India, Ceylon and Iraq was estimated to be, Indian troops—5,83,280 immediately and an additional 2,30,000 at the end of the year, and British troops—2,92,500 at that time and another 1,35,000 at the end of the year. For this force the estimate of the beds required was :—<sup>24</sup>

	<i>Immediately</i>	<i>In future</i>	<i>Total</i>
<i>Indian troops</i>			
Required	9,000	3,000	12,000
Sanctioned	5,600		5,600
Deficiency	3,400	3,000	6,400
<i>British troops</i>			
Required	7,300	3,300	10,600
Sanctioned	3,500		3,500
Deficiency	3,800	3,300	7,100

To cover this deficiency for British troops an alternative to the 'Hospital Town Churchill Scheme' was suggested and it was decided that the barracks at Poona, which were then being converted to provide 2,000 hospital beds, should be retained for hospital purposes for the duration of the war. In addition, hospital projects for 2,000 beds at Aundh and at Secunderabad were launched. For Indian troops, the schemes projected in July 1942, comprised 2,250 beds in the barracks in Lucknow, 1,500 beds in Delhi ; and 3,000 beds to be provided later <sup>25</sup> Consequently, in 1942 and up to July 1943, ten additional IBGHs were raised and two existing IBGHs combined (C) were disbanded. This, together with an increase of 200 British troops beds in an IBGH(BT), involved an addition of another 5,100 base hospital beds for Indian troops and 7,100 for British troops during the period.

The situation regarding the base general hospitals was again reviewed in July 1943. The existing beds at that time were 9,700 for Indian troops and 10,600 for British troops. Future requirements

<sup>23</sup> F/Z-22048/H(M).<sup>24</sup> F/Z-22048/H(M)<sup>25</sup> F/1028/H(M)

were estimated to be 16,250 beds for Indian troops and 6,965 for British troops. There was thus a surplus of beds for British troops but those for Indian troops were deficient by 6,550. In order to cover this deficiency, and for forward planning another 2,600 base hospital beds for Indian troops and 1,000 for British troops were raised till November 1943. Further minor adjustments were also made in certain base general hospitals from time to time.

In March 1944, it was planned to make a provision of 15,200 beds for Indian troops and 17,865 beds for British troops.<sup>6</sup> The existing beds at that time were 12,300 for Indian troops and 11,000 for British troops. Sanction had already been recorded for 2,000 beds for British troops at Aundh. It was estimated that this accommodation would be completed by April 1944. Consequently, the deficiency was of 2,900 beds for Indian troops and 1,865 beds for British troops, the latter were to be supplied from the United Kingdom. It was proposed to locate the British beds at Bangalore.

In September 1944, while planning was being further carried out for the forces required in 1944/45, a review of the base hospital beds was again made.<sup>7</sup> The percentage of beds for Indian troops was increased from 1.5 per cent to 2 per cent for the Army in India, including troops required for the frontier defence and internal security. The percentage allowed for the component of IAF and RAF based on India was 0.5 per cent. Requirements were estimated to be 23,079 for Indian troops and 15,792 for British troops. Beds available at that time were 12,300 for Indian troops and 11,000 for British troops. A further 2,000 beds for Indian troops were to be raised and 4,800 beds for British troops were demanded from the United Kingdom. Thus there was a net deficit of 7,779 beds for Indian troops.<sup>8</sup> As a result of this review sanction was obtained for the raising of eight IBGHs(IT) of 1,000 beds each during 1944-45.

By 15 August 1945, nine additional base hospitals had been raised and further reorganisation had been carried out in certain hospitals, which resulted in an overall addition of 8,900 beds for Indian troops and decrease of 550 beds for British troops. Thus the authorised number of base hospital beds on 15 August 1945 was 21,000 for Indian troops and 10,450 for British troops.

An important feature during this period was the partial opening of the 'Hospital Town Jalalpur' situated in Bangalore plateau at a height of 3,000 feet. This consisted of eight hospitals with 9,000 beds with facilities for dealing with ophthalmic, orthopaedic, neurological, maxillo-facial, skin and ENT cases. Base hospitals in Poona were reorganised to provide 2,000 transit beds for British patients awaiting evacuation to the United Kingdom. A combined hospital of 1,000 beds for Indian troops and 250 beds for British troops was also reorganised at Aundh for the treatment of tuberculosis cases. By 31 December 1945, the 'Base Hospital Town Jalalpur' was completely

<sup>6</sup> H/3/26/H(M)

<sup>7</sup> F/6202/1/H(M)

<sup>8</sup> I/6202/1/H(M)



In the earlier stages accommodation provided for the RIN consisted of dockyard dispensaries and depot sick quarters. Later, sick bays were opened in various ports. The requirements for accommodation in the military hospitals were limited to those requiring special accommodation *e.g.*, for mental and infectious diseases, the seriously ill or those involving specialist examination. As the Army hospitals, due to their own growing requirements could not admit naval personnel in large numbers, St. George's Hospital, Bombay, which had admitted naval officers during the peace time placed one ward, designated as 'Naval Ward' at the disposal of the naval authorities on 1 July 1940. In April 1943, a RIN hospital with an initial bed strength of fifty was opened in Bombay; this by 1944 had expanded to 350 beds.<sup>33</sup> In March 1944, due to the increase in the strength of the RN personnel for purposes of future operations which were then being planned, it was estimated that the following accommodation would be required :—

<i>Station</i>	<i>Beds</i>
Karachi .	40
Madras	30
Cochin .	200
Mandapam	110
Vizagapatam	165
Chembur .	100
Total	645

At Karachi and Madras the RN was to assume full responsibility by providing naval sick quarters. At the other stations, however, the requirements of the RIN were to be met by the expansion of the military garrison hospitals to include a naval wing, which was to be staffed by RN personnel under the general administration of the military officer commanding. By September 1944, the estimated requirements for the RN in Army hospitals had increased to :—<sup>34</sup>

<i>Station</i>	<i>Beds</i>	<i>Date required</i>
Karachi	100	After collapse of Germany
Bombay .	100	October 1944
Cochin .	280	October 1944
Madras	50	After collapse of Germany
Vizagapatam	150	February 1945
Calcutta .	160	November 1944
Chittagong	40	November 1944
<i>For the Fleet Air Arm</i>		
Coimbatore ..	12	September 1944
Tambaram .	30	November 1944
Sulur .	10	September 1944
Cochin	15	September 1944

<sup>33</sup> H/3/26/H(M)<sup>34</sup> F/2316/H(M)

In order to provide this accommodation the following arrangements were made —

Karachi—Beds were provided out of the authorised bed strength of No 1 IBGH(BT), Karachi

Bombay—Beds were made available in BMH, Colaba

Cochin—200 beds were to be provided in the contemplated expansion of CMH, Ernakulam. Another eighty beds were also being arranged

Arrangements were also in hand to provide accommodation at the other stations by the dates required. With regard to the Fleet Air Arm, beds required had been provided at Coimbatore, Cochin and Sullur. Thirty beds required at Tambaram could be made available in Madras when the planned hospital expansion there was completed. Regarding the RIN, the PMO, RIN, had stated in September 1944, that no further accommodation would be required from the resources, with the exception of a fifty-bedded ward in Calcutta. Arrangements were made to provide this accommodation in IMH Alipore. Officers were to be accommodated in No 47 BGH. In October 1944, however, it was estimated that the strength of the RIN by the end of 1945, would be 2,500 officers and 26,800 ratings. Hospital beds required for these at 29 per cent of the strength for both officers and ratings were 73 and 780 respectively. These requirements were taken into account when making provision for hospital accommodation for the Army.<sup>35</sup>

#### HOSPITAL COVER FOR LABOUR EMPLOYED ON MILITARY PROJECTS

The type of labour that was employed by the Army and the arrangements which were in force for their hospital treatment were as follows —

##### (i) *Indian Pioneer Corps*

These were regular Army personnel and were treated in the military hospitals. The provision of hospital beds for them was made as part of the field force.

##### (ii) *Indian States Labour*

This was organised in units approximately 1,200 strong. The medical staff was provided by the states. The military medical authorities provided a medical inspection room and a fifty bedded sick bay, the purpose of which was the treatment of minor cases of illness locally in the unit lines. In fact it served as a detention hospital. In cases where hospital accommodation was required the patients were transferred to civil hospitals.

##### (iii) *Civil Pioneer Corps*

This corps was initially formed for air raid precaution duties and other similar purposes. The strength of each unit was 15 officers and 1,250 other ranks. Medical arrangements were the same as for the Indian States Labour except that the equipment for the medical inspection room, and the sick bay was supplied initially by the Provincial Government and was subsequently maintained from Army medical resources.

<sup>35</sup> F/6202/1/H(M)

(iv) *Assam Civil Transport Corps.*

This was a purely civil corps but was used for military purposes, partly by the British and partly by the American services. Hospital treatment was a civil responsibility.

(v) *Indian Tea Association Labour.*

The Indian Tea Association was responsible for all medical arrangements. Medical equipment and stores were, however, provided by the Army.<sup>36</sup>

(vi) *Contractors' Labour.*

Civil labour under this category was employed by the Military Engineering Service. Medical arrangements were made under Military Engineering Service Regulations by the chief engineer in conjunction with the local civil and military authorities.

(vii) *Civil Labour in Ordnance Depots.*

This was normally a civil commitment. Difficulties were, however, experienced in isolated districts.

These arrangements worked satisfactorily till the beginning of 1943. By that time there was a large civil labour force in Assam employed chiefly on works in connection with the construction of roads and aerodromes. Their number varied from time to time. In February 1943, it was approximately as follows.—<sup>37</sup>

India—Burma Road (new construction)	20,000 plus 23,000 Indian Tea Association (already provided for)
Gauhati—Shillong—Sylhet Roads	1,600
Dobaka—Lanka Road (Nowgong District)	2,000
Various aerodromes	not less than 20,000

The sick from this labour force, especially those employed by the military authorities as contract labour, were not adequately looked after medically. The military medical authorities were of the opinion that the treatment of such personnel was the responsibility of the Provincial Governments and not of the Army. The military authorities, however, endeavoured to meet the medical requirements of the State Labour Units, but could not provide additional facilities except at the expense of military personnel. In April 1943, it was estimated that the labour employed in Assam during April to September 1943, would be .—

Auxiliary Pioneer Battalions	..	42,000
Indian States Labour Units		24,800
Civil Pioneers		2,000
Indian Tea Association	...	50,000
Civil Transport Corps Porters		5,980
Total		<hr/> 124,780

<sup>36</sup> See also page 556

<sup>37</sup> F/6679/H(M)

If this were done these teachers would exert a very marked influence on the young graduates who, seeing their teachers in uniform, would be more inclined to volunteer for service in the Army. More extensive use should be made of civil medical practitioners, as well as civil hospital accommodation, by the military authorities.

*Propaganda* The mission had interviewed many influential members of the Indian medical profession and were struck by the lack of propaganda to attract doctors to the Army. They considered that much could be done in this direction and offered the following suggestions —

- (i) Recruitment committees should be strengthened by the inclusion of influential Indian doctors to advise on matters of recruitment and demobilisation. Such a committee should be given details as to the requirements of the Army and be fully conversant with the terms and conditions of service offered to doctors. This committee should remain in existence until demobilisation was completed.
- (ii) Some statistics should be prepared showing the steps taken to Indianise the service.
- (iii) Guarantees should be obtained from all employers of doctors, e.g., railways, shipping companies, factories, etc., that all war-time appointments would only be temporary and that doctors who had served and were recommended by the provincial medical committees, as suggested above, would have first consideration for permanent employment.

This propaganda was to be given wide publicity.

*IMS* There were a number of minor, but nevertheless irksome, irritations to which newly joined officers were subjected and which contributed in no small measure to the difficulty of obtaining volunteers to the services. These should be removed as expeditiously and generously as possible, indeed the removal of the more important was considered to be an urgent matter and the mission suggested that the following action should be taken without delay —

- (i) Travelling warrants or an advance of travelling allowance before leaving home should be issued to all doctors requested to join the service on first appointment.
- (ii) The gazetting of officers should be expedited and those who by virtue of date of qualifications were eligible for ante-date should be permitted to join in their proper ranks.
- (iii) Posting of officers to duty from the training centres should be more carefully carried out and officers sent to appointments for which they were suited.

*IMD* Many of these doctors were doing excellent professional work but their basic pay was totally inadequate and their status in the service inferior to that to which they were accustomed in civil life. The mission was of the opinion that they should be granted commissions in the Indian land forces as lieutenants in the Indian Army Medical Corps and given emoluments which would enable them to maintain their status as officers. Some assistant surgeons

It would satisfy many of the aspirations of the Indian medical profession, it would certainly bring in a large body of recruits and it might even render conscription unnecessary.

The mission, therefore, recommended the formation of an Indian corps on the lines of the Royal Army Medical Corps. They were aware that similar proposals had previously been submitted but those were mainly concerned with improving the conditions of the officer cadre. The proposals of the mission were designed to provide an efficient and complete medical corps of all ranks of the Indian Army. Officers of the IMS were to be seconded to this corps and were to continue under their existing terms and conditions of service. All officers of the IMD with all personnel of the IHC were to be transferred to the new corps. The permanent organisation and administration of the IMS, with its important civil responsibilities, was a thing to be settled only after the war.

#### MINOR RECOMMENDATIONS

*Economy in Personnel* · In accordance with their terms of reference the mission had investigated whether the best use was being made of such resources of medical and nursing personnel as were and could be made available. They came to the conclusion that considerable economies could be effected and much more effective use made of the existing personnel. This opinion had been reached as the result of interviews with those in authority in the provinces, both in and outside the service, and also as the result of their personal experience.

To this end they made the following suggestions :—

*Planning* : It was essential that the DGIMS should be brought into all military plans affecting the medical arrangements for the Army and complete co-operation obtained thereby between the medical authorities, both civil and military, at the headquarters. This co-operation should also be extended to the military and civil medical authorities in the provinces

There appeared to be a large number of civilian beds in the provinces which the civil medical authorities were prepared to offer to the military for service cases. If the co-operation suggested were carried to its fullest extent, there could be available for military purposes a considerable number of hospital beds, whilst a large number of civilian staffs could be made available to the military for part-time services. The equipment and standard of care provided at a large number of civil hospitals was of a high quality and fully equal to that of Indian military hospitals

*Civil Profession* : In many of the larger municipal towns in the provinces there was a nucleus of eminent consultants who would be willing to serve locally in an honorary capacity looking after military casualties and sick in civil and military hospitals. Some of them were teachers in medical colleges and should be given appropriate honorary ranks as consultants or specialists and be permitted to wear uniform.

knowledge of clerical work and on first appointment to the IHC were unable to do typing. These clerks were given a short period of training at the depot and training establishments, the major portion of which was devoted to basic military training and only a small fraction to technical clerical work. The result was that further training had to be continued in the hospitals, a procedure which under existing conditions was impossible. In most of the hospitals the mission visited they found that doctors had to devote a considerable portion of their time to clerical work, which would have been unnecessary had fully trained clerks been provided.

*Training of IHC* The existing system of training under which hospitals were expected to train recruits in their technical duties considerably interfered with the efficiency of the hospitals. Much of the time of medical officers and nursing sisters was devoted to training these personnel in their technical duties, although they should have been in some degree competent when posted to carry out the duties for which they were appointed. It appeared that the staffs of the depots and training centres were inadequate and would have to be brought into line with the staffs provided for the other technical corps, e.g., signals. Technical training for all sections of the IHC should be completed at the depots and training establishments before the personnel were sent to military hospitals and field medical units. The mission considered that the DMS should control the training of all recruits of the IHC through an inspector of medical services and should be responsible for the recruitment of medical personnel.<sup>1</sup>

<sup>1</sup> 1/6/6/H(M)

had complained about the accommodation allotted to them on joining the service and the mission had seen some of the quarters provided. It was obvious that such accommodation was entirely unsuitable for commissioned officers and that better provision should be made for these doctors commensurate with their status.

*Women Doctors :* The mission was informed that the recruitment of women doctors for service in the Army had been suspended for a period, but had then been opened up again. The mission met several women doctors in the service and were informed by their commanding officers that they were performing their duties well. The mission understood that many more were willing to join the Army. These could be employed as civilian medical practitioners in their own towns either part-time or wholetime, or could be recruited to serve in military hospitals in their own provinces. Further, the women doctors in the service had no representative at headquarters and the mission suggested that a suitable senior woman doctor should be appointed to Army headquarters with appropriate rank. She would be made responsible for the interests of women doctors in the service and would also act as adviser to the DGIMS and the DMS on medical matters connected with the women's services.

*Replacement of Medical Officers by non-Medical Officers for duty as Registrars and Quartermasters :* The selection of these officers should be carried out by the medical branch of the Army headquarters. It was of vital importance that the right type of officer should be obtained for these duties, but the mission had heard complaints that the right type of officers were not being sent in all cases. More expeditious posting of these officers to replace medical officers was necessary as medical officers were still being employed to carry out these duties both in India and overseas. The mission suggested that officers who were physically fit for first-line duty should be posted to these appointments. With regard to registrars, the selected officers should carry out a course of seven to ten days at suitable military hospitals before proceeding to take over their duties.

*Nursing Sepoys :* There seemed to be an adequate supply of personnel available for these duties but the quality of the personnel provided was quite unsuitable and many were so illiterate that they were untrainable as nursing orderlies. A different class of personnel was required. Such personnel as the mission had seen in civil hospitals undergoing training were required as male nurses and a number of these would be forthcoming provided the pay and conditions of service offered were reasonably adequate. The Indian Army offered three times the pay of a nursing orderly to a newly enlisted clerk of the IHC. As the raising of the standard of a nursing orderly was of prime importance in obtaining a high standard of nursing care for the sick and wounded it could only be achieved by offering pay and conditions of service at least comparable to those newly enlisted clerks.

*Clerks :* Recruits to the clerical section of the IHC were taken from men of matriculation standard, but hardly any of these had any

the sick.<sup>4</sup> The outbreak of World War I stimulated interest in the nursing care of the Indian soldier and a Temporary Indian Nursing Service (TINS) was started.<sup>5</sup> An appeal was made for trained nurses from India in August and September 1915. The response, however, was not satisfactory and only about 300 candidates registered their names for duty in military hospitals.<sup>6</sup> Of these, a large number were untrained or otherwise unsuitable. Some of the trained nurses offered their services but refused to register for duty outside India. By the end of 1915 approximately sixty temporary nurses had been appointed and were doing duty. After this the supply of trained and partly trained nurses in India began to dwindle and, in February 1916, the General Secretary, St John Ambulance Association, had to be approached with a view to obtaining candidates of his nomination for training in military hospitals. During World War I 473 temporary and St John nurses were appointed, this number included 240 fully trained, and 42 partly trained temporary nurses, and 29 fully trained and 162 untrained St John Ambulance Association nurses. The trained nurses who joined were from civil hospitals or those in private practice. They were either Anglo-Indians or domiciled Europeans. They served in Indian and British troops hospitals in India, Aden, Mesopotamia and Egypt and on hospital ships. Except for two hospital ships *Madras* and *Loyalty*, which were staffed entirely by them, the members of the TINS were attached to the QAMNS(I).

In 1918 the Indian station hospital committee recommended the employment of women nurses in Indian hospitals. But this recommendation could be accepted at the time only for first class hospitals as an experimental measure, to be extended later if considered necessary.<sup>4</sup>

After the Armistice of 1918 the temporary nurses continued to serve till early 1922. The nurses who had a lien on their civil appointments or those who did not come from recognised training institutions were released. The remainder were to go when their services were no longer required, as the general consensus of opinion at that time was that Indian troops in peace time did not require the services of women nurses.<sup>6</sup> The late Colonel Sir Henry Gidney suggested that as the members of the TINS were not needed for Indian troops they should be employed in military hospitals for British troops, so that recruitment of nurses from the United Kingdom could cease, this would have meant a financial saving to India. The suggestion was not approved, but the temporary nurses were retained, mainly on account of frequent military operations, with resultant casualties, on the north west frontier of India. They were posted to Indian station hospitals in certain cantonments, especially in northern India. Great improvements were noted in the hospitals where these women nurses served. Patients received better care and wards were more efficiently run. In August 1923, a further allocation of fifty five women nurses was

<sup>4</sup>A/5/39/H(M)<sup>5</sup>A/5/27/H(M)<sup>6</sup>H/5/57/H(M)



## APPENDIX XIV

### The Early History of the Military Nursing Services in India

The process of evolution of the military nursing service in India was as gradual as the growth of the Indian Army. A start was made on 21 March 1888, when the first batch of ten British trained Army nurses arrived in India for service in station hospitals for British troops.<sup>1</sup> The scheme was introduced, in the first instance, as an experimental measure. During 1890-91 the number of nurses was gradually increased from ten to twenty-eight. In 1893 the nursing service was recognised as an integral part of the Army medical service, and in 1896 it was designated the Indian Army Nursing Service (IANS) and its establishment was increased to fifty-two. The IANS nurses were employed in four regional areas, with headquarters at Rawalpindi, Meerut, Bangalore and Poona, each containing three or four military stations and under the independent charge of a lady superintendent. Deputy lady superintendents were appointed at the other stations with a staff varying from two to four.<sup>2</sup> Nursing sisters did not hold charge of any wards but supervised the general nursing, as it was originally intended that the nurses would merely superintend the nursing of serious cases and the actual nursing would be done by nursing orderlies drawn from the local combatant units, with the assistance of Indian ward servants

In 1902, when Queen Alexandra became the first president of the British Army Nursing Service in the United Kingdom, a committee was appointed to consider the organisation of the service. The War Office in London suggested the amalgamation of the British and Indian services, but this proposal was not accepted by the Indian authorities. About a year later, in 1903, the IANS was converted into the Queen Alexandra's Military Nursing Service for India (QAMNS(I)). The establishment of QAMNS(I) was fixed at 91, which included 1 chief lady superintendent, 16 senior nursing sisters and 71 nursing sisters. The chief lady superintendent was the adviser to the DMS in India on matters affecting the internal economy and welfare of the nursing service. The others nursed the sick and wounded British soldiers, instructed the male nursing orderlies drawn from the various British combatant units in nursing duties and supervised their work. They were engaged for a term of five years, reckonable from the date of leaving England. They were eligible for re-employment, if considered suitable, for further terms of five years each until the age of compulsory retirement.<sup>3</sup>

Under the regimental hospital system for Indian troops nursing was left to ward orderlies who had no specialised training in nursing

<sup>1</sup> Station hospitals for Indian troops were not in existence at that time

<sup>2</sup> A/5/40/H(M)

<sup>3</sup> A/7/38/H(M)

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<sup>4</sup> V/5/39/H(M)

<sup>5</sup> A/5/27/H(M)

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<sup>3</sup> A/7/38/H(M)

## APPENDIX XV

### The Early History of the Indian Hospital Corps

The Army Hospital Corps, the Army Bearer Corps and subordinate personnel of Indian station hospitals were the three elements from which the Indian Hospital Corps was formed

#### ARMY HOSPITAL NATIVE CORPS

Little is known about the medical organisation that served the Indian sepoys, even in the later part of the nineteenth century. Although we hear about the excellent work done by the surgeons of the IMS, ably assisted by the apothecaries of the IMD and sub-assistant surgeons of the Indian Subordinate Medical Department, yet few details are available of the men who nursed the patients and others who did the menial work in the so called hospitals. Not only has it no authentic recorded history but the verbal traditions and stories about its origin and development are also generally uncertain, partially untrue and often contradictory.

In the days of the East India Company there were no regular formations charged with the task of looking after the health of the troops. Each unit had its own little dispensary where the medical officer did his best with the few drugs and dressings available. Gradually this developed into tiny regimental hospitals where the medical officer, with the help of his sub-assistant surgeon and a couple of semi-trained sepoys from the unit, gave as much nursing ministrations as he could. These 'line hospitals' were non-dieted and ill-equipped and whatever was needed came as a gift from the quartermaster as they were not authorised any hospital furniture, bedding or linen. Those were the days when many a young surgeon in the IMS successfully performed major operations having sterilised the few instruments and meagre dressings in a time honoured kerosene oil tin.

In 1873 the British Army in the United Kingdom substituted the station hospital system for that of the regimental hospital. India followed suit eight years later, and in 1881, such hospitals were started for the British troops of the Bengal Army, which extended over a wide area from Calcutta to Multan or Campbellpur. The new type of British hospitals were established, among other stations, at Benares, Allahabad, Fyzabad, Nainital, Ranikhet, Agra, Muthra, Delhi, Jullundur, Sialkot, Mianmur, Attock and Nowshera. These hospitals required staffs of subordinates and menials and for this purpose the Army Hospital Native Corps was formed under the authority of Clause 25 of the Indian Army Circulars of January 1881, and the original staff was largely recruited from the personnel of the disbanding regimental hospitals.

made for the Indian station hospitals ; this was finally sanctioned as an interim establishment on 6 May 1924.<sup>7</sup>

Moreover, on 6 September 1923, a scheme was submitted for the reorganisation of the British Military Nursing Service in India by the amalgamation of the QAMNS(I) with the QAIMNS. While this reorganisation was under consideration the existing establishment of 91 women nurses QAMNS(I) was raised to 221, with effect from 6 May 1924, as an interim establishment and it continued till 1 November 1926, when the QAMNS(I) was absorbed in the QAIMNS.<sup>8</sup> Such of its members as were unwilling to transfer their services to the QAIMNS were allowed to continue to serve under their existing conditions of service. The new establishment was fixed at 229 nurses, consisting of one CPM or chief lady superintendent, 4 PMs or lady superintendents, 17 matrons or senior nursing sisters and 207 sisters or nursing sisters and staff nurses.

The rates of pay were fixed as follows :—

	<i>Rupees per month</i>
CPM	810-15-900
PM	620-15-680
Matron	345-12-417-13-430
Sister	280-6/2-316-9/2-325
Staff nurse	265-2-267-3-270

The period of tour of service on the Indian establishment was fixed at five years.<sup>9</sup>

About the same time, on 1 October 1926, it was decided to form a permanent nursing service in the Indian Army and the nursing service for Indian troops hospitals came into being with a total number of 55 nurses consisting of 12 matrons, 18 sisters and 25 staff nurses, who had already been in employment. This service was limited to the women nurses recruited within Indian limits. They were to do actual nursing, supervision and training of the nursing section of the IHC.<sup>10</sup> By April 1927, the designation of the service was changed to Indian Military Nursing Service.

The strength of this service continued to be 55.<sup>11</sup>

The highest rank that an IMNS nurse could attain was that of matron. The administrative head of the nursing services was designated chief lady superintendent if a member of QAMNS(I) or CPM if belonging to the QAIMNS.<sup>12</sup>

A certain number of nurses trained in maternity work were also employed as matrons or assistant matrons for duty in the military families' hospitals. Normally one matron was appointed for each military families hospital.

The Indian Voluntary Aid Service (IVAS) was constituted in December 1938, with the object of supplying voluntary aid to the nursing branch of the medical services of the Army in the event of mobilisation. The sanctioned strength of IVAS was 350 *viz.*, 250 for Indian troops and 100 for British troops.

<sup>7</sup> AI(I)419/1924

<sup>8</sup> F/Z-1759/H(M)

<sup>9</sup> AI(I)B-90/1927

<sup>10</sup> F/Z-1759/H(M), AI(I)A-64/1926, AI(I)B-244/1926

<sup>11</sup> AI(I)A-26/1927, F/Z-1759/H(M).

<sup>12</sup> H/5/57/H(M).

- (iv) A general section, which included the existing establishments of cooks, ward servants, *dhobies*, etc., of the Indian and British station hospitals

Each company was administered by the ADMS of the division and was under the immediate command of an officer of the medical service, who was designated as company commander and graded as DADMS for pay. An assistant surgeon was appointed to the headquarters of each company to assist the commanding officer.

At the headquarters of each company, except No 10 Company<sup>3</sup> in Burma, there were two VCOs, one a subedar and the other jemadar. The latter performed the duties of jemadar-adjutant. At each divisional company headquarters there was also one havildar major whose duties were analogous to those of a NCO with similar rank in an Indian infantry unit.

Recruitment for the corps was made by the divisional company commanders in consultation with the recruiting officers concerned. Assistance was also obtained from other divisional company commanders, if necessary. Normally recruitment was in the lowest grade and each man, on first joining, was posted to the company headquarters for necessary training. Clerks, store-keepers and men of the nursing and ambulance sections were enrolled and attested, while those of the general section were only enrolled.

Officers, assistant surgeons and VCOs were posted to the company headquarters by the DMS. Promotions to the rank of jemadar or subedar were made by the Government of India on the recommendation of the company commanders and the DMS, and those to the rank of havildar major and havildar in the clerical, store-keepers, nursing and ambulance sections were made by the DMS from a general roll of the corps. Havildars of any section could be selected for appointment as havildar-major, jemadar or subedar. Promotions up to rank, and to the higher grades within the general section were made by divisional company commanders.

The abolition of No 5 Company was sanctioned with effect from 1 March 1929. The personnel of this company, except those rendered surplus and those transferred to companies in the Eastern Command, were distributed between Nos 6 and 9 Companies. The following revised establishment of the IHC was also issued on the same date —<sup>6</sup>

Officers	9
Assistant surgeons	9
Subedars	9
Jemadars	8
Havildar majors	9
Clerical section	370
Stores section	541
Nursing section	1,028
Ambulance section	2,340

<sup>3</sup> A subedar only was allowed in No 10 Company for these duties.

<sup>6</sup> AI(1)B 22/1929

of India sanctioned the formation of the IHC on 1 June 1920, by combining the Army Hospital Corps, the Army Bearer Corps and the subordinate personnel of the Indian station hospitals.<sup>3</sup>

The establishment sanctioned for the corps was as follows :—<sup>4</sup>

Officers	..	10
Assistant surgeons	...	10
Subedars	..	10
Jemadars	...	9
Havildar-majors	.	10
Clerical section	...	334
Stores section	...	619
Nursing section	...	1,160
Ambulance section	..	4,400
<i>General Section—</i>		
Cooks		1,034
Water carriers	..	1,023
Ward servants		1,232
Washermen	...	999
Sweepers	.	1,124
Barbers		112
<hr/>		
Total	.	12,086
<hr/>		

The corps was divided into ten divisional companies corresponding to the then existing military divisions in India and Burma. These companies were located as follows :—

No 1 Company	Peshawar
No. 2 Company	Rawalpindi
No. 3 Company	Lahore
No. 4 Company	Quetta
No. 5 Company	Mhow
No. 6 Company	Poona
No. 7 Company	Meerut
No. 8 Company	Lucknow
No. 9 Company	Secunderabad
No 10 Company	Rangoon

The requirements of the frontier brigades were to be found from No. 1 Company and those of the Aden brigade from No. 6 Company.

Each company consisted of four sections, *viz.* :

- (i) Company headquarter section, in which were included clerks and store-keepers
- (ii) A nursing section which included the existing ward orderlies of the Indian station hospitals
- (iii) An ambulance section which embodied the Army Bearer Corps.

<sup>3</sup> A/5/39/H(M), AI(I)379/1920

<sup>4</sup> In addition No 10 Company was provided with one English speaking school master. The remaining companies were authorised one English speaking school master and one pupil teacher. Provision also existed for the employment of one extra pupil teacher for every thirty pupils over ten. Two physical training instructors were also provided for each company.

The authorised composition of the corps was as follows —<sup>9</sup>

Officers commanding	5
Company officers	5
Assistant surgeons	5
Subedars	5
Jemadar adjutant	5
Jemadar clerks	2
Jemadar quartermasters	4
Jemadar educational instructors	4
Havildar-majors	5
Clerical section	441
Stores section	585
Nursing section	1,096
Ambulance section	2,340
<i>General Section—</i>	
Cooks	834
Water carriers	808
Ward servants	1,168
Washermen	732
Barbers	94
Sweepers	1,290
Ambulance section reserve	2,500
Nursing section reserve	1,800
Total	<u>13,728</u>

#### ESTABLISHMENT 1935

In September 1935, the establishment of the corps was again revised in so far as the other ranks were concerned and was fixed as follows —

Clerical section	449
Stores section	567
Nursing section	1,054
Ambulance section	2,190

No 2 Company, Lucknow February 1932	IHC personnel serving in the Eastern Command)
No 3 Company, Poona February 1932	(Combining the headquarters of Nos 6 and 9 Companies and the IHC personnel serving in the Southern Command)
No 4 Company, Quetta (1930)	(The headquarters of No 4 Company and the IHC personnel serving in the Western Command)
No 5 Company, Rangoon (1932)	(The headquarters No 10 Company and IHC personnel serving in Burma)



*General Section—*

Cooks	...	839
Water carriers	..	800
Ward servants	.	1,113
Washermen	..	705
Barbers	...	93
Sweepers	..	1,193
Ambulance section reserve	...	1,400
Total	...	10,466

## IHC RESERVE

A reserve of 1,400 men for the ambulance section had been sanctioned in 1925. This number was raised to 2,500 men in 1929. In the same year (1929) it was decided to form a reserve of 1,800 men for the nursing section. Personnel of both these sections were then enrolled for five years in Army service, and for a further period of reserve service to complete a total period of twenty years. The service in the Army could be extended beyond five years in cases considered suitable for further employment. The period of Army service was increased to six years and total service reduced to eighteen years in 1935. The terms of service were again revised in 1938, when minimum colour service for nursing and ambulance sections was laid down as eight and six years respectively and the period of combined colour and reserve service remained as before. Service in the reserve was usually unpopular and the nursing section reserve always remained very much below strength.<sup>7</sup> To overcome this acute shortage it was decided to permit ambulance section personnel to join the reserve in the nursing section without any proper training, if considered suitable by the officer commanding. A large percentage of the nursing section reserve was composed of such personnel.

## REORGANISATION 1929

In May 1929, sanction was given to reorganise the IHC in five companies on a command basis, each company under the command of a medical officer. The companies were eventually located in Rawalpindi, Lucknow, Secunderabad (later Poona), Quetta and Rangoon.<sup>8</sup>

Nos. 1 to 4 Companies were administered by the DDMS of the command concerned. No. 5 Company in Rangoon was under the administrative control of the ADMS district.

<sup>7</sup> AIs(I) 24/1925, B-19/1929, B-20/1929, 2/1935, 83/1938, 85/1938

<sup>8</sup> No. 1 Company, Rawalpindi. (Combining the headquarters of Nos. 1, 2 and 3 Companies and the IHC personnel serving in the Northern Command).

No. 2 (Eastern Command) Company (Combining the headquarters of October 1930, redesignated Nos. 7 and 8 Companies and the

*Functions—*

- (i) To carry out all negotiations with 2nd Echelon, and to order the despatch of drafts from training companies for units and hospitals in the theatre of operations
  - (ii) To keep all records and accounts of all personnel
  - (iii) To train recruits and hold reinforcements in the training wing as necessary
  - (iv) To arrange transfers and replacements of personnel for hospitals within the then existing Western and Southern Command boundaries
- (b) *No 1 Training Company, Rawalpindi, No 2 Training Company, Lucknow—Composition of each company—*
- (i) Headquarters
  - (ii) Training Wing
  - (iii) Recruits and reinforcements

*Functions—*

- (i) To train recruits and hold reinforcements as necessary
- (ii) To carry out transfers and replacements of personnel for all hospitals within their respective command
- (iii) To despatch drafts as ordered by the depot

The IHC Depot was to be formed from No 3 Company, Pooner, and IHC Records Office, Kirkee. Nos 1 and 2 Companies were to become training companies and No 4 Company, Quetta, was to provide IHC personnel for field medical units dependent on it. This scheme ensured uniformity and created a central authority with which Army Headquarters and 2nd Echelon could deal in time of war with regard to all questions of IHC reinforcements and casualties. The IHC was thus organised like a regiment which in war could maintain one depot dealing with records, pay and reinforcements for the several battalions comprising that regiment <sup>13</sup>

## TERMS OF SERVICE BEFORE THE WAR

From 1 April 1938, personnel of the clerical and store sections were enrolled for a minimum period of ten years service. They were not liable for service in the reserve. Personnel of the nursing and ambulance sections were enrolled for eight and six years Army service respectively and for a further period of reserve service sufficient to complete a total period of eighteen years. The service in the Army could be extended up to eighteen years in the case of suitable candidates <sup>14</sup>

The pay of the VCOs, IORs and NCs(E) of the IHC was as follows —<sup>15</sup>

<sup>13</sup>F/Z/36378/H(M)  
<sup>15</sup>P & A Regs Vol I

<sup>14</sup>A15(I)83, 85/1938

*General Section—*

Cooks	806
Water carriers	804
Ward servants	1,066
Washermen	730
Sweepers	1,291
Ambulance section reserve	2,340
Nursing section reserve	1,230
Total (excluding officers)	12,527

In order to centralise the records of the IHC a depot had been formed in 1935 at Kirkee.<sup>10</sup> It took over the duties of the record office from all the five IHC companies<sup>11</sup> and was also intended to be the central IHC depot on mobilisation. Originally the plan of operations, in the event of war, provided for the mobilisation of the existing IHC companies, each company being responsible for the records of their personnel. But with the formation of the central IHC record office alterations in the war organisation for the IHC became necessary and these were finalised on 20 January 1937, when the following organisation was sanctioned.<sup>12</sup>

*(a) IHC Depot, Poona and Kirkee Composition—*

- (i) Headquarters.
- (ii) Records and accounts section.
- (iii) Training Wing.
- (iv) Recruits and reinforcements.

<sup>10</sup> A Record office for the IHC was formed on 1 September 1935, at Kirkee, to deal with subjects which were previously dealt with by each command company under the AG's Branch, Army Headquarters

It was felt that a central co-ordinating office on the same lines as other record offices under Army Headquarters was necessary to implement various policies and instructions issued from time to time. Up to then, each divisional company and later command company had been responsible for this, with unsatisfactory results.

The officer-in-charge records IHC dealt with the following subjects in connection with Indian officers, IORs and men of the IHC and non-effectives of the Army Hospital Corps and Army Bearer Corps : Gazette notifications, posting and promotion of Indian officers on an all India basis, inter-company transfers, transfers to and discharges from the reserve, control of reservists, confidential reports of Indian officers and havildars, custody and maintenance of records, upgrading of civilian hospital store-keepers and writers, memorials and petitions of non-effectives, recommendations for the meritorious service, long service and good conduct medals, medals of non-effectives, relief funds, land grants, pensions and pensioners, extension of colour service of ambulance and nursing sections, custody of security deposits and preparation of audit check. The decisions of officer-in-charge records on these matters were final, subject only to this being revised on appeal to the C-in-C.

The first and most important item after the formation of the record office was the collection of thousands of sheet rolls and documents of non-effectives of the Army Hospital Corps, the Army Bearer Corps and the IHC. These were not properly maintained, or registered and were scattered all over India. Approximately 150,000 records were collected, sorted out, registered and filed. This system helped greatly in answering and disposing of the great number of petitions which were received. The documents and records of effectives were maintained by sections separately for each command company, who were responsible for the submission of Part II orders. Control of transfers to the reserve and of reservists was strictly exercised, in order to maintain their proper authorised effective strength, and many reservists were discharged for various reasons, including disabilities.

<sup>11</sup> With the separation of Burma from India the records of No. 5 Company were transferred to the Burma Hospital Corps.

<sup>12</sup> F/Z/36378/H(M).

## APPENDIX XVI

### The Number of Officers Employed by the Recruiting Medical Organisation

It had been extremely difficult to obtain accurate figures of medical officers employed in the recruiting medical organisation during the early years of war. The following figures are however believed to be accurate —

#### IMS OFFICERS

Pre-war 1939	8
September/October 1939	48
3 September 1940	61
10 May 1941	95
February 1942	108 IMS only
Details of civilians employed are not available	

7 November 1942

Areas	IMS	Sub assistant surgeons	CMP	Total
Peshawar Area	3	1		4
Rawalpindi Area	12	3		15
Lahore Area	8	8	1	17
Jullundur Area	6	4		10
Delhi Area	11	21	6	38
Lucknow Area	9	5	1	15
Calcutta Area	2	2		4
Ajmer Area	4	3	3	10
Poona Area	2	4	5	11
Bangalore Area		6	7	13
Gurkha Area	1	2		3
Garhwal Area	1			1
Northern Area	10	10	1	21
Eastern Area	8	4	2	14
Southern Area		10	3	13
Western Area		7	3	10
Total	77	90	32	199

				<i>Rupees</i>
Subedar	...	...	...	105
Jemadar	..	...	..	65
Havildar	...	...	..	19
Naik	...	...	...	15
Sepoy	...	.	..	11

VCOs and IORs of the IHC employed in the clerical and store-keepers sections and the jemadar educational instructor received the following grade pay in addition to the pay of the rank.

				<i>Rupees per month</i>
Jemadar clerical section	...	..	..	60
Jemadar stores section	..	...	...	35
Jemadar educational instructor	..	...	..	32
Havildar	..	...	..	60
				<i>Per day</i>
Naik	...	..	..	1-8-0
Sepoy	.	..	..	0-12-0

Sepoys of the IHC employed on nursing duties received nursing pay at the rate of two, four and five rupees per month after completing one, four and seven years of service respectively.<sup>16</sup>

<i>NCs(E)</i>			<i>Rupees per month</i>
Head cooks, 1st and 2nd grade	..	..	14
Cooks	..	...	13
Assistant cooks	.	.	10
Water carriers, 1st grade	.	.	12
Water carriers, 2nd grade	...	.	9
Barber	...	...	10
Ward servant, 1st grade	..	..	13
Ward servant, 2nd grade	...	..	11
Ward servant, 3rd grade	.	.	9
Washerman, 1st grade	..	..	15
Washerman, 2nd grade	.	...	12
Sweepers, 1st grade	..	..	12
Sweepers, 2nd grade	..	.	9

Ward servants and sweepers of the IHC received extra duty pay at two annas per day when employed on isolation cases, in the Southern Command Laboratory, Poona, in district and brigade laboratories and with the Enteric Fever Laboratory, Kasauli, and when working steam disinfectors.

This extra duty pay was also granted to the ward servants when employed as X-ray assistants, operating theatre attendants or in a medical mobilisation store.

Bangalore Area	4	6	5		15
Kunraghat Area	1				1
Lansdowne Area			1		1
Northern					
Eastern	14	4	4		22
Southern	4	7	3	5	19
Western	4	8	5		17
Deputy RO (Non-combatants)	6	7			13
Total	113	113	56	12	294

*Medical officers employed on 1 September 1944*

Areas	IMS/IAMC	Sub Asst Surgeons & IAMC (SMS)	CMP	Others including rural medical officers	Total
Peshawar	11	1			12
Rawalpindi	14	7	1		22
Lahore	8	18	4		30
Jullundur	6	14			20
Ambala	5	11			16
Delhi	6	10	4		20
Lucknow	10	9	9	4	32
Ajmer	5	3	6	1	15
Calcutta	7	1	7		15
Poona	6		5	9	20
Bangalore	3	8	4		15
Gurkha	2	1			3
Garhwal			1		1
TRO (Eastern)	13	4	4		21
TRO (Central)	4	8	5		17
TRO (Southern)	4	13	3		20
Deputy RO (Non-combatants)	5	9			14
Total	109	117	53	14	293

10 September 1943

Areas	IMS/IAMC	Sub-Asst. Surgeons & IAMC (SMS)	CMP	Others inclu- ding rural medi- cal officers	Total
Peshawar Area ..	3	1		.	4
Rawalpindi Area .	12	3	.	..	15
Lahore Area ...	9	12	1	..	22
Jullundur Area .	6	4	..	..	10
Delhi Area	10	20	6	.	36
Lucknow Area	9	8	1	..	18
Ajmer Area ...	5	3	2	.	10
Calcutta Area	4	2	1	..	7
Poona Area ..	1	5	5	..	11
Bangalore Area ..	2	5	7	..	14
Kunraghat Area	1	3		..	4
Lansdowne Area	1	..	..	.	1
Northern ..	12	11	1	.	24
Eastern . ..	9	5	2		16
Southern ...	1	15	3	.	19
Western .	1	7	6		14
Deputy RO (Non-com- batants) .	2	.			2
Total ..	88	104	35		227

April 1944

Areas	IMS/IAMC	Sub-Asst. Surgeons & IAMC (SMS)	CMP	Others inclu- ding rural medi- cal officers	Total
Peshawar Area	11	..	1		12
Rawalpindi Area .	14	8	1	..	23
Lahore Area .	9	18	4	..	31
Jullundur Area ..	7	9	.	7	23
Ambala Area ...	4	10	..	..	14
Delhi Area .	6	11	5	..	22
Lucknow Area ...	10	10	11	..	31
Ajmer Area ...	7	3	5	..	15
Calcutta Area ...	6	1	8	..	15
Poona Area ..	6	11	3	..	20

*Ambulance Trains*


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Number of Ambulance Trains	Gauge	Carrying capacity October 1945
<hr/>		
2	BG	178
3	BG	238
4	BG	266
5	BG	206
6	BG	253
7	BG	253
8*	SG	Not known
9	MG	Not known
10	MG	192
11	BG	233
12	SG	Not known
13*	SG	Not known
14	MG	132
15	MG	212
16	MG	156
17	MG	136
19†	MG	126
20	MG	126
21	MG	132
22	MG	132
23*	MG	Not known
25	BG	241
26	BG	241
27	BG	258
28	BG	258
29	MG	126
30		†
33	NG	80 Lying 24 Sitting
34	BG	196
35	BG	238
36	BG	226
37	MG	Not known
38		†

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\* Disbanded before August 1945

† Renumbered 24

‡ Personnel only



## APPENDIX XVIII

# Transports Raised During the War for the Evacuation of Casualties

*Hospital ships, Carriers and Steamers*

Name/Number		Capacity	Remarks
<i>Hospital Ships</i>			
<i>Karapara</i>	..	... 355	
<i>Karoa</i>	.	... 400	
<i>Talamba</i>	...	.. 485	Sunk by enemy action on 10 July 1943
<i>Tairea</i>	..	. 483	
<i>Wu Sueh</i>	...	... 296	
<i>Hospital carriers</i>			
<i>Nalcheria</i>	..	. 120	
<i>Badora</i>	..	... 120	
<i>Malchor Trueb</i>	..	. 300	
<i>Ambulance Transport</i>			
<i>Rajula</i>	..	... 300-350	

*Hospital River Steamers—Carrying capacity 200 each*

No.	
1	. Raised as <i>Allsa</i>
2	. Raised as <i>Beyra</i>
3	.. Raised as <i>Mekla</i>
4	. Raised as <i>Bittern</i>
5	... Raised as <i>Widgeon</i>
6	. Raised as <i>Sylu</i>
7	.. Raised as <i>Naga</i>
8	... Raised as <i>Sherpa</i> (Replaced by <i>Mikir</i> 25 June 1943)
9	... Raised as <i>Mallard</i>
10	.. Raised as <i>Lark</i>
11	... Raised as <i>Swift</i>
12	. Raised as <i>Kite</i>

## APPENDIX XIX

### The Evacuation of Casualties Classification of Cases by Types of Disease and injury and Hospital and Transport Facilities Provided<sup>1</sup>

#### GENERAL

- 1 This classification has been compiled in consultation with the consulting physician and consulting surgeon
- 2 It is not intended to be a complete list, but is a guide as to how to deal with a particular type of case Amendments will be issued as indicated
- 3 Special attention is directed to Class "G" Para 34

#### CLASS "A"

- 4 Cases likely to become fit for duty or convalescent depot within three weeks of admission to hospital (i.e., under three weeks cases)
- 5 *Includes —*
  - (a) Bacillary dysentery  
Acute gastro enteritis  
Coryza, acute pharyngitis, bronchitis, *etc*  
Short term fevers  
Ringworm (uncomplicated)  
Scabies  
Acute gonorrhoea
  - (b) Appendicitis  
Haemorrhoids and minor rectal lesions  
Minor battle casualties  
Closed minor fractures and dislocations (*e.g.*, Short long bones clavicle)  
Varicoccele  
Hernia  
Hydrocele  
Minor infections including infections of hand and fingers  
Varicose veins  
Non specific adenitis  
First attack of non calculus renal colic

<sup>1</sup> Administrative Instruction Special No 1 Evacuation policy of HQ L of C Area  
SEAC dated 28 December 1944 L/1/1/H(M)

*Independent ward and Ambulance Coaches*


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Number of independent ward coaches			Gauge	Carrying capacity
66*	...	...	MG	20
67*	..	...	MG	20
68*	...	...	MG	20
69	...	...	BG	20
70	...	...	BG	20
289	...	...	BG	16
290	...	...	BG	16
303	...	..	BG	16
304	..	...	BG	16
305	...	...	BG	25
306	...	...	BG	25
309	...	...	BG	25
310	...	...	BG	16
311	...	...	BG	16
312	..	...	BG	16
<i>Ambulance Coach</i>				
339	...	...		14

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\*Capacity upto September 1945 was 40

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## CLASS " D "

11 Skin cases not included in Class 'A' but likely to be fit within two months and who, it is considered, will benefit from treatment in a hill station

(a) *Includes* —

Dermatitis of various types  
Ringworm and epidermophytosis  
Complicated prickly heat  
Impetigo

12 *Distribution*

(a) These will be evacuated to a skin centre in Shillong  
(b) Similar centres will be established in hospitals at Kohima and Imphal

13 *Jungle Sores from 36th Division and north east Assam*

These will be evacuated to No 45 IGH(C)—Jorhat

## CLASS " E "

14 *Definition*

Cases excluding those in Classes "A", "B", "C" and "D", who will be fit for discharge from hospital within three months

15 *Includes* —

(a) Amoebic dysentery  
Infective hepatitis  
\*Convalescent typhus cases  
\*Enteric group fevers, when convalescent  
\*Many anaemias of various origins  
(b) Soft tissue battle wounds for delayed primary suture and through and through chest wounds without complications  
(c) Non-toxic goitre  
Joint lesions not requiring operation, (e.g., tears of the ligaments of the knee joint)  
Uncomplicated fractures where union can be anticipated in two months  
(d) Fractures in which immobilisation in plaster can be continued in convalescent depots (e.g., humerus, forearm, scaphoid, etc)  
(e) Notes —  
\*To be evacuated only when medically fit for the journey

16 *Distribution*

These cases will be evacuated to and held in Advance base hospitals at Shillong, Sylhet, Agartala, Comilla and Dacca (Group II)

6. *Distribution.*

These cases will be held and treated in Group III units (forward hospitals, etc.). They will not be evacuated unless the holding capacity becomes filled and there is NO safety margin of accommodation for incoming convoys. If evacuated they will not proceed further back than the advanced base hospitals except in a serious emergency and under orders of the ADMS/DDMS.

7. *Lighter cases.*

Certain of the lighter cases may be held and treated in the admitting medical unit at the discretion of the officer commanding. But these units must always maintain an adequate reserve of beds for a sudden influx of casualties.

## CLASS " B "

8. *Uncomplicated acute malaria cases*

- (a) These will be held in MFTUs.
- (b) In the absence of an MFTU they will be treated as for Class ' A ' Para 6 above.

## CLASS " C "

9. *Venereal cases not included in Class ' A '.*(a) *Includes :—*

- (i) Gonorrhoea resistant to sulphonamides.
- (ii) Venereal sores
- (iii) Syphilis

10. *Distribution.*

- (a) These cases will be evacuated to the nearest venereal diseases centres.

## (b) Venereal diseases centres will be established at :—

- (i) No. 49 IGH(C) . . . . . Dibrugarh
- (ii) No. 66 IGH(C) . . . . . Manipur Road
- (iii) No. 52 IGH(C) ... Gauhati
- (iv) No. 41 IGH(C) . . . . . Imphal
- (v) No. 74 IGH(C) ... . Comilla
- (vi) No. 125 IGH(C) . . . . . Doapalong

(c) *West African*

These will be treated at No. 46 West African General Hospital—Dacca

(d) *East African*

150 East African General Hospital—Mynamati

26 *Traumatic paraplegia cases*

These cases will be admitted to ordinary hospitals and not to neuro surgical units. They will be evacuated as rapidly as possible to base hospitals in India after suprapubic cystostomy. Much attention to the skin is necessary during evacuation and a note to that effect should be entered on AFW 3118 for information of medical officers on ambulance trains, hospital river steamers and hospital ships.

27 *Psychiatric cases*

All psychiatric battle casualties will be labelled with AFW 3046-A (Pn) with the word 'EXHAUSTION' written in large block capitals both on the reverse of this form and in the appropriate place on AFW 3118. They will be evacuated to the nearest forward psychiatrist who will enter the diagnosis and delete the word 'EXHAUSTION' on AFW 3118 for those cases to be evacuated. The appropriate AFW 3046-A or B will be affixed to the clothing of the patient who requires to be evacuated to base hospitals and he will be despatched under escort as indicated below — (The object of the label is to distinguish neurotic and psychotic cases)

*Distribution*

- (a) *British* to No 47 BGH Poona via Madras for further disposal
- (b) *Indian* to IMH Alipore for further disposal
- (c) *African* West African to No 40 West African General Hospital, Poona, via Chittagong, Madras, and East African to No 150 East African General Hospital for further disposal to India Command via Chittagong and Madras

28 *Venereal disease cases* (See under Class "C")

29 Major amputations will be evacuated by usual routes ex L of C Command. Closure of amputation flaps with penicillin therapy should be carried out at the advanced base hospital level and not in forward units.

30 Orthopaedic cases—requiring special experience in their management, or special facilities, or equipment or skilled physiotherapy in the course of their treatment. Such conditions are —

- (a) Major fractures and dislocations, particularly those which are compound and involve a joint, or where the attempt at primary reduction has failed
- (b) Fracture of the spine
- (c) Major joint lesions—e.g., rupture of cruciate ligaments of the knee, internal derangements of the knee joint, recurrent dislocation of the shoulder joint
- (d) Joint diseases requiring prolonged investigation or treatment or which will obviously result in downgrading, e.g., osteoarthritis, rheumatoid arthritis, backache due to organic changes

## CLASS " F "

17. *Definition.*

All cases, including skin and venereal, who are unlikely to be fit for discharge from hospital within three months.

18. *Includes:—*

- (a) Severe emaciation with para sprue.  
Severe anaemias (Hb under 4.5 g. per 100 c.c.).  
Amoebic abscess of the liver.  
Cases likely to be boarded out of service. (Pulmonary tuberculosis, kala-azar, etc.)  
Convalescent acute anterior poliomyelitis.  
Post-diphtheritic neuritis.
- (b) All cases of toxic goitre.  
Urinary lithiasis.  
Major non-urgent surgery.

19. *Distribution.*

These cases will be evacuated to rear base hospitals in India.

## CLASS " G "

20. *Cases requiring Special Treatment.*21. *Eye cases.*

- (a) The more serious eye cases should, wherever possible, be evacuated to the eye-centre, Comilla.
- (b) Intraocular foreign bodies should be evacuated, wherever possible, to the ophthalmic centre, Comilla by the fastest means (*i.e.*, mail or special plane).  
Only when this is not possible should cases be evacuated to India.

22. *Maxillo-facial cases.*

Evacuate to Calcutta by air for onward despatch.

23. *Severe burns.*

When fit to travel these will be evacuated to the burns centre, Comilla or the burns centre, Calcutta by fastest possible route (mail or special plane). (See para 34).

24. *Head injury cases.*

Evacuate to No. 3 British Mobile Neuro-Surgical unit, Comilla.

25. *Peripheral nerve and neuro-surgical cases (excluding Para 24 above).*

Evacuate ex L of C Command by the usual routes after preliminary treatment in forward and base hospitals.

Severe thoracic wounds, especially complicated by pneumothorax

Severe gunshot wounds of joints until the risk of infection is past The too early evacuation of such cases predisposes to suppuration

Severe burns In the early stages serious burns do not travel well by any route, and they should be held till their general condition is stabilised

## HOSPITAL AND TRANSPORT FACILITIES PROVIDED

### NORTHERN SECTOR

1. <i>North east Assam I of C</i>	Garrison troops only
<i>Class 'A' (under 3 weeks)</i>	To be held in the nearest military hospital
<i>Class 'B' (uncomplicated venereal)</i>	
<i>Class 'C' (venereal 3 weeks to 3 months)</i>	To be evacuated to the venereal disease centre No 66 IGH(C) Manipur Road by ambulance train or M/G if appropriate
<i>Class 'D' (skin 3 weeks to 3 months)</i>	To be evacuated for treatment in the skin centre at Shillong by ambulance train to Guwahati and M/G to Shillong
<i>Class 'E' (3 weeks to 3 months cases)</i>	To be evacuated for treatment in the advanced base hospitals in Shillong as in Class 'D' above
<i>Class 'F' (over 3 months)</i>	To be evacuated to base hospitals in India

#### (1) *British and African*

- (i) By ambulance train to Manipur Road for onward transmission by air to Comilla and thence by ambulance train to Chittagong for evacuation to Secunderabad Base
- (ii) Alternative evacuation if (i) is not available, by ambulance train to Guwahati and hospital river steamer to Dacca or Daudkandi for onward transmission to Chittagong and as in (i) above



such as Scheuermann's disease, ankylosing spondylitis, sacroiliac arthritis.

- (e) Foot deformities which may require operation or may only demand downgrading—*e.g.*, claw foot. This does not include the minor lesions such as ingrowing toe nail or hammer toe.

### *Distribution.*

These cases will be evacuated by the usual route for onward transmission to orthopaedic centres in India.

31. Gunshot wounds of femur cases will be flown by mail or special planes which may be available, to Dacca, direct or via Comilla.

32. *Vascular injuries and diseases.*

Traumatic aneurysms, arteriovenous aneurysms and such diseases as Buerger's Disease will be evacuated ex L of C Command for despatch to the special vascular surgery centre in India.

33. Tuberculosis cases will be evacuated ex L of C Command usual routes.

34. *Serious cases which must be held at any level until fit to move.*

- (a) *Medical*, acute typhus cases, enteric group and many severe anaemias of various origin will not be evacuated but will be held in the medical unit to which first admitted until convalescent and fit to be moved.

Under special circumstances, where air evacuation from field units to a forward hospital is readily available with short and smooth road journeys at both ends, such cases may be evacuated. Even under such circumstances, however, typhus cases, after the fifth day from the onset of the disease, should not be evacuated.

The decision to evacuate such cases will rest with the specialist officer on the spot.

In the case of operational necessity, however, the senior medical administrative officer may exercise his discretion to evacuate any or all cases.

- (b) *Surgical* gunshot wounds of the abdomen (for 10 days or longer if necessary).

Gas gangrene.

Tetanus

Limb wounds which have resulted in damage to, or needed ligation of, a main artery. These should be held until the distal circulation is stabilised and there is no risk of secondary haemorrhage.

Serious multiple flesh wounds and cases which have lain out a long time before operation. In these, penicillin should be administered.

<i>Type of Cases</i>	<i>Distribution</i>
<i>Class 'F' (over 3 months cases)</i>	To be evacuated to base hospitals in the India Command
	<i>Distribution</i>
	(1) <i>Indian</i> By ambulance train to Gauhati and then by hospital river steamer to Sirajganj
	(ii) <i>British and African</i> By air to Comilla for onward transmission to Secunderabad Base
<i>Class 'G' (special cases)</i>	Urgent special cases may be transferred by air to Comilla
<i>Imphal Cases Classes 'E' and 'F'</i> When air lift is sufficient and <i>Class 'G' (all cases)</i> will be evacuated by air ex Imphal to Comilla	
<i>Labour Sick</i>	Entitled personnel of the Indian Pioneer Corps and Indian State labour units and in emergency other civilian labour personnel will be treated in forward hospitals if expected to recover within 3 months. Over 3 months cases will be evacuated by ambulance trains to Gauhati and by hospital river steamers to Sirajganj for Calcutta

### CENTRAL SECTOR

#### 3 *Fourteenth Army Evacuation*

- (a) Evacuation from forward areas in Burma by light plane, and transport planes to corps medical centres
- (b) Classification by medical and surgical specialists in mobile surgical teams and CCSs at corps medical centre level initially, and again by specialist in advanced base hospitals if necessary
- (c) *Distribution*

<i>Type of Cases</i>	<i>Distribution</i>
<i>Class 'A' (under 3 weeks cases)</i>	To be held at corps medical centre level
<i>Class 'B' (uncomplicated venereal)</i>	Held in MITUs at corps medical centres
<i>Class 'C' (venereal—3 weeks to 3 months cases)</i>	To be held and treated in venereal disease centres at corps medical centres

(b) *Indian :*

By ambulance train to Gauhati and thence by hospital river steamer to Sirajganj for Indian base hospitals.

*Class 'G' (special cases)*

- (i) Intraocular foreign bodies and urgent serious eye cases
- (ii) Maxillo-facial cases
- (iii) Severe burns
- (iv) Head injuries

To special hospital Comilla (No. 92 IGH) by fastest possible means (air ex Manipur Road or ex north east Assam if available).

2. *Imphal—Kohima—Manipur Road L of C :*

(a) *Evacuation*—By road (MAC) from Imphal and Kohima areas to Manipur Road. (Imphal cases only when air evacuation lift to Comilla is filled, and not for very ill patients).

(b) *Classification*—By medical and surgical specialists in Imphal, Kohima and Manipur Road forward hospitals.

(c) *Distribution :*

*Type of Case**Distribution*

*Class 'A' (under 3 weeks cases)*

To be held in forward hospitals in Imphal, Kohima and Manipur Road.

*Class 'B' (uncomplicated malaria)*

To be held in forward hospitals in absence of MFTUs.

*Class 'C' (venereal—3 weeks to 3 months cases)*

To be treated at venereal diseases centre No. 66 IGH(C) Manipur Road (road evacuation).

*Class 'D' (skin—3 weeks to 3 months cases)*

To be treated locally at skin centre Shillong (road, rail evacuation) only to be evacuated when special centre treatment is essential and when long and tedious evacuation is possible.

*Class 'E' (3 weeks to 3 months cases)*

To be held in advance base hospitals. *Distribution :* By MAC to Manipur Road. By ambulance train from Manipur Road to Gauhati.

*Then :*

(i) *Indian and British*—By MAC to Shillong.

(ii) *West African*—To Dacca by hospital river steamers.

*East African* to be evacuated to Comilla by air from Manipur Road. (British and West African cases may also be evacuated by this method).

*Type of Cases**Distribution**Class 'C' (venereal)*

To be treated in the venereal disease centres at No 125 IGH(C) Kyaukpau

*Class 'D' (skin) (3 weeks to 3 months)*To be evacuated to Shillong skin centre *via* Chittagong or Comilla only if cold climate is essential for recovery*Class 'E' (3 weeks to 3 months)*

To be evacuated —

(1) By casualty evacuation aircraft to Comilla if rapid though less comfortable evacuation is required

(11) By hospital ship to Chittagong and ambulance train to Comilla, Agartala or Dacca

*Class 'F' (over 3 months)*

To be evacuated to Chittagong by hospital ship and then —

(1) British and African } By hospital  
to Madras } ship  
(11) Indian to Calcutta }*Class 'G' (Special cases)—*(1) Serious eye cases  
Severe burns  
Head injuries  
Maxillo facial cases }

By casualty evacuation aircraft to Comilla special centres

(11) Gunshot wounds of femur

As in (1) above to Comilla and then by ambulance train or L5 aircraft to Dacca

*Fourteenth Army Cases from Southern Burma*

Are now being staged at Akyab and Kyaukpau enroute for the advanced base hospitals in Comilla

*Classes 'E', 'F' and 'G'* above will be evacuated by air to Comilla instead of by hospital ship, now that casualty air evacuation sorties are available ex Kyaukpau and Akyab

<i>Type of Cases</i>	<i>Distribution</i>
<i>Class 'D'</i> (skin —3 weeks to 3 months cases)	To be evacuated via Comilla and treated in skin centre at Shillong.
<i>Class 'E'</i> (3 weeks to 3 months cases)	To be held in advanced base hospitals. Evacuated by air to Comilla by casualty evacuation aircraft based on Comilla. A proportion of these cases will be distributed evenly among the advanced base hospitals in Dacca and Agartala by ambulance train (and hospital river steamers ex Daudakandi).
<i>Class 'F'</i> (over 3 months cases)	To be evacuated to base hospitals in India. <i>Distribution</i> : Evacuate to Comilla as for Class 'E' by air. Then by ambulance trains to Chittagong for (a) Madras—British and African. (b) Calcutta—Indian.
<i>Class 'G'</i> (special cases)	Urgent special cases should be flown to Comilla. Head injury, maxillo-facial, serious eye cases and severe burns to Comilla. Gunshot wounds of the femur to Dacca direct or via Comilla.

### SOUTHERN SECTOR

#### 4. Arakan L of C :

- (a) *Evacuation from forward areas* : Urgent cases will be flown by light aircraft from Ruywa and Taungup to Kyaukpyu light plane strip.  
Other cases will be evacuated by creek steamers and paddle steamers from Taungup, Letpan, Buywa and Tamandu to Kyaukpyu and by coastal carrier from Ruywa, Ramandu to Akyab.
- (b) *Classification* : By surgical specialists in mobile surgical teams and medical specialists in CCSs and MFTUs.
- (c) *Distribution* : (Ex Kyaukpyu (Ramree) and Akyab).

<i>Type of Cases</i>	<i>Distribution</i>
<i>Class 'A'</i> (under 3 weeks)	To be held in CCSs and forward hospitals in Kyaukpyu and Akyab.
<i>Class 'B'</i> (malaria)	To be held in MFTUs and forward hospitals.

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In addition, local labour was estimated to be 67,500 in April, 60,000 in May, 43,700 in June, 26,700 in July and 13,200 in August and September 1943. Two Auxiliary Pioneer Battalions and seven Indian States Labour Units were also employed on GHQ projects and a further two Pioneer Porter Battalions were being raised. As the civilian sources could not provide the necessary medical facilities it was agreed that the labour units working in Assam and directly connected with the defence projects should be looked after by the military authorities. Cases from the Indian States Labour Units, Civil Pioneer Force and Assam Civil Transport Corps, requiring hospital treatment were then admitted to the military hospitals if accommodation in the civil hospitals was not available. Medical units allotted for this purpose were one IGH(IT) 500 beds, fifteen ISSs, one anti-malaria unit, one field hygiene section and two motor ambulance sections. By the end of August 1943, the labour force in Assam had increased to 2,55,430. It was estimated that about 3,000 hospital beds would be required for this force. Further, in October 1943, it was finally realised that it would be unwise to rely too much on assistance from civil sources. Therefore, it was contemplated that the requirements for the hospital treatment of labour would best be met by providing six 400 bedded IGHs(IT) together with fifteen staging sections. Out of this, one 500 bedded hospital and fifteen staging sections had already been provided. Sanction for the raising of four 400 bedded and one 300 bedded IGHs(IT) was given in November 1943.

The above arrangements were confined to Assam. In January 1944, it was considered expedient that the civil labour personnel in other parts of India where civil resources were inadequate, should also be admitted to the military hospitals. It was apparent that the civil medical services were not in a position to meet the increased demands for hospital accommodation when large forces of civil labour were drafted into new areas and employed on military projects. It was equally apparent that in the interests of the general war effort measures should be taken to preserve the health of the civilian labour. In March 1944, the position regarding labour to be employed on military projects was as follows —<sup>38</sup>

*Labour employed in March 1944 on military projects*

	Assam	Ceylon	India	Future target
Indian Pioneer Corps	84,678	1,500	37,296	138,170
Indian States Labour	28,560	10,000		53,760
Civil Pioneer Corps	20,400		4,800	30,000
Assam Civil Transport Corps	10,000			14,000
Indian Tea Association Labour	80,000			80,000
Ordnance Depots			10,000	10,000
Madras Labour Units		15,000		15,000
Total	1,38,960	25,000	14,800	2,02,760
Contractors' labour	2,50,000		6,50,000	

<sup>38</sup> F/6294/H(M)

Of these, the Indian Pioneer Corps, being military enlisted labour, was entitled to full medical treatment. Labour employed in the Fourteenth Army area was also accepted in the military hospitals, when necessity arose, for the remaining categories of labour the military medical authorities finally recognised the logic of the Army providing treatment at a scale of 1·5 per cent. for organised labour, *i.e.* other than contractors' labour, and at 1 per cent. for contractors' labour. The medical cover to be provided was in accordance with the following scale :—

- (i) *Organised labour*—cover at 1·5 per cent. for every 40,000 labourers.
  - (a) IGH(IT) 400 beds.
  - (b) Four ISSs.
  - (c) One Indian field hygiene section.
- (ii) *Contractors' labour*—cover at 1 per cent.

Based on the above the total requirements for both the organised and contractors' labour were —

	<i>Requirements</i>	<i>Already sanc- tioned</i>	<i>Balance</i>
IGHs (IT)	20	6	14
ISSs	80	15	65
Indian field hygiene sections	20	.	20

At first this commitment was accepted as a long term policy only, and was to be implemented as and when resources permitted. However, the financial authorities could not see their way to agree to this, since in their opinion the medical provision for civil labour remained the responsibility of the civil authorities. They only agreed to the provision of medical cover for the labour employed by the SEAC.<sup>39</sup>

#### PRISONERS OF WAR HOSPITALS

In July 1940, the Middle East Command requested the Indian authorities to accept male German and Italian internees and POW. It was decided to provide hospital cover at the scale of 3 per cent. for Asians and 4 per cent. for Europeans. Italian POW had started arriving by that time and they were temporarily accommodated at the Central Internment Camp, Ahmednagar. By November 1940, their number had grown to 119 officers and 999 other ranks. Regular accommodation for them was, therefore, built at Ramgarh<sup>40</sup> Sanction was also given for the formation of a hospital there with a bed strength of 120 beds for POW officers and 360 for other ranks and

<sup>39</sup> F/20083/H(M)

<sup>40</sup> POW Camp, Ramgarh was closed on 1 October 1942, and the POW were transferred to POW Camps in Bangalore, Bhopal, Dehra Dun and Yol.

74 beds for Indian and 30 for British troops employed on administrative and guard duties, with effect from 26 November 1940<sup>41</sup> On 20 February 1941, two POW group hospitals were formed at Bangalore where POW camps had been established. The bed strength of each was 420 beds. In addition provision was also made for the treatment of serious cases amongst the POW at BMH Bangalore which was expanded by 120 beds, 24 for officers and 96 for other ranks<sup>42</sup> In March 1941, it was visualised that India might have to accept further Italian POW. It was, therefore, decided to build POW camps at Bhopal, Dehra Dun and Yol (Kangra Valley). On 5 April 1941, sanction was given for the formation of two POW group hospitals of 480 and 456 beds at Bhopal (Bairagarh),<sup>43</sup> 164 beds for Indian troops and 40 for British troops were also provided there for the administrative personnel and the guards. On 1 July 1941<sup>44</sup> another hospital was established at Clement Town, Dehra Dun, with a bed strength of 504 for POW, out of which 24 beds were provided to meet the requirements of any transfers of sick POW from Ramgarh, who might require a change to cooler climate<sup>45</sup> An additional 9 beds for Indian and 3 for British troops were also provided there. The civilian internees at Dehra Dun were placed under the charge of the Defence authorities as the ordinary civil parole camps were not considered to be safe for their custody. A 40-bedded central internment camp hospital was formed at Premnagar, Dehra Dun, on 1 September 1941, to provide hospital cover for these internees<sup>46</sup> Six beds for Indian troops and 2 for British troops were also provided there. A POW group hospital for Yol (Kangra Valley) camp was established on 12 September 1941. The bed strength authorised for POW was 334 for officers, 130 for other ranks plus 36 for the seriously ill<sup>47</sup> In addition, 90 beds for Indian and 30 beds for British troops were provided for the administrative personnel and the guards.

In January 1942, the War Office in the United Kingdom had instructed Malaya and Burma to send all Japanese POW to India. A separate camp for them was constructed in Bikaner. Accommodation was provided for 100 officers and 3,000 other ranks, a hospital of 5 beds for officers, 85 for other ranks and 10 for infectious cases was also formed there and started functioning in June 1943. In August 1943, the accommodation was increased by 10 beds for other ranks, making a total of 110 beds<sup>48</sup> POW cages designed to hold 600 POW were also maintained at various stations for the POW in transit to the camps. Cases requiring hospital treatment were sent to the nearest military hospital. In January 1943, the arrangements were as follows —<sup>49</sup>

No 8 POW Cage Calcutta	IMH Alipore
No 9 POW Cage Secunderabad	IMH Trimulghery
No 10 POW Cage, Chittagong	68 IGH(C) Chittagong
No 16 POW Cage Poona	No 2 IBGH(IT) Kirkee

<sup>41</sup> F/Z-23582/H(M)<sup>44</sup> F/Z 23573/H(M)<sup>47</sup> F/Z-24205/H(M)<sup>42</sup> F/Z 23858/H(M)<sup>45</sup> F/Z-23561/H(M)<sup>48</sup> F/6499/H(M)<sup>43</sup> F/Z-23573/H(M)<sup>46</sup> F/Z 23574/H(M)<sup>49</sup> F/6709/H(M)

By September 1944, when POW camps started closing, the total hospital beds provided for the POWs were 2,940 for Europeans and 110 for Asians. In November 1944, the bed strength of the POW group hospital, Bikaner was increased to 200 beds. On 1 October 1945, a POW camp for the Japanese POW was established at Quetta and provision was also made for a 300-bedded hospital there. The POW camps at Bangalore and Dehra Dun were closed on 15 September 1944, and 15 October 1944, respectively. The remaining POW camps in India were closed in the following order and by March 1947 all the camps had been disbanded.—<sup>50</sup>

Internment Camp, Dehra Dun	31 January 1946
POW Camp, Bikaner	15 June 1946
POW Camp, Quetta	15 June 1946
POW Camp, Bhopal	28 February 1947
POW Camp, Yol	31 March 1947

#### CONVALESCENT DEPOTS

Up till June 1942, there were only two field convalescent depots functioning in India, one for Indian troops and the other for British troops. Others were to be mobilised and opened as and when the situation demanded. Two base convalescent depots were also functioning at Wellington and Poona for British troops. It was not intended at that time to open base convalescent depots for Indian troops.

At that time casualties from overseas or from the operational areas in India, after passing through a chain of base hospitals to the garrison hospitals or field hospitals to the reinforcement camps or to the convalescent depots, ultimately reached the training battalion or equivalent unit. Some of these casualties were generally of the following types.—

- (i) Personnel who could attend as out-door patients.
- (ii) Personnel who were physically and particularly mentally unfit for duty but would be fit in due course.
- (iii) Cases discharged from hospitals with bodily defects which required treatment of a minor nature and physical exercises *etc.*
- (iv) Personnel who failed to co-operate in their recovery.

Their influx into the training battalions resulted in the virtual flooding of the depots *etc.*, with men of medical category B and C. The care of these convalescents, for which the depots had neither the staff nor accommodation nor any proper facilities, interfered with their primary function of training. Thus, in order to accommodate this class of personnel, convalescent depots were considered to be a necessity and were raised at the scale of 1.5 per cent. for Indian troops and 3 per cent. for British troops of the field force.<sup>51</sup> Convalescent depots for use in conjunction with the base hospitals were provided

<sup>50</sup> POW/3/29/H(M)

<sup>51</sup> F/6583/H(M)

at the scale of 20 per cent of the base hospital accommodation. For officers these were planned on the same scale as for other ranks. The total number of beds provided in the convalescent depots on 15 August 1945 was 550 beds for officers and women, 16,500 for Indian troops and 8,500 for British troops.

#### HOSPITAL ACCOMMODATION IN THE EASTERN ARMY

Whereas in the other commands the expansion of hospital accommodation followed a set plan, *viz*, the expansion of garrison hospitals, the formation of base general hospitals or the provision of field general hospitals for operational troops in the area, in the Eastern Army, broadly speaking, all the three types of hospitals were utilised at one and the same time for all purposes. The position there was also different from the other operational commands, *viz*, Iraq, where there were no hospitals when operations started and complete non divisional units had to be sent. In the Eastern Army, in the early stages, troops were scattered in brigade groups or smaller garrisons, and hospitals were spread all over the area, *e.g.*, at Calcutta, Barrackpur, Ranchi, Jamshedpur, Asansol, Midnapore, Dacca, Comilla, *etc*. Many of these had been opened mainly to deal with the new garrisons and were being expanded gradually as the garrisons dependent upon them increased. In addition to the military garrisons, each hospital was also receiving casualties from an average of three aerodromes.

An appreciation of the medical situation in the Eastern Army was made in January 1943. There was a high rate of sick wastage in the hot weather, specially in the areas occupied by the IV Corps and the 14th Indian Division. On the other hand the provision of hospital beds had not been sufficiently in advance of actual needs, with the result that there was a constant shortage and gross overcrowding. The strength of the troops stationed in the area at that time was 3,16,100 Indian and 1,11,200 British.

The scale of beds authorised was as follows —<sup>52</sup>

	Indian troops Percentage	British troops Percentage
(i) Sick		
All troops in the IV Corps area	10	10
All troops in other area	4	6
Indian state labour units in the IV Corps area	8	
Indian states labour units in other areas	3	
(ii) Air casualties		
All troops	0.5	0.5

<sup>52</sup> F/6659/H(VI)

(iii) *Battle casualties*

Calculated on 26,000 Indian troops and 4,000  
 British troops in the IV Corps area and 13,000  
 Indian troops and 2,000 British troops in the  
 14th Division area .. . . 4 4

Based on the above scales the number of beds required was 25,298 for Indian troops and 8,244 for British troops. Allowing for an additional brigade group in the 70th Division which had been ordered to join the Eastern Army, the number of beds required was 25,298 for Indian and 8,600 for British troops. Hospital beds available at that time were 10,333 for Indian and 4,665 for British troops, plus an authorised expansion of 1,115 for Indian and 491 for British troops. Provisional arrangements for an additional 4,911 beds for Indian and 1,900 beds for British troops had also been made. The total number of beds available in the Eastern Army in 1943 was 16,359 for Indian and 7,056 for British troops. The existing and estimated deficiency was 14,965 beds for Indian and 3,935 beds for British troops immediately, and 8,931 beds for Indian and 1,544 beds for British troops by the end of 1943. However, it had not been possible to expand the garrison and field hospitals in the Army at that time due to the shortage of medical personnel. Only 500 beds could be made available to the Eastern Army. In addition, 3,000 beds were allotted when these might be ready by the end of March 1943. Consequently, after everything possible had been done to provide an adequate number of beds during the malaria season, it was still necessary to evacuate from the area cases which would normally have been retained in the Army area, and arrangements were being made for the provision of 2,800 beds for the Indian troops in Lucknow by 1 April 1943, plus 2,600 beds in the general hospitals which were being formed at Bareilly and Moradabad.

About the middle of 1943, the general policy was that cases likely to be fit in three months should be retained within the Army area but all unfit, chronic and invalid patients should be evacuated as speedily as possible. Previously there had been a tendency to rush every case back to the larger hospitals, which were inadequate to contain the flow. Many thousands of men were evacuated to the Central Command who were found on arrival there to have no serious ailment. These men although fit to rejoin their units were 'lost' in the Central Command for many months. Between March and May 1943, 18,000 men had been thus evacuated to the Central Command. The implementation of the new policy rapidly showed that the Eastern Army was deficient by at least 7,000 beds. The estimate of total admissions was about 5,00,000 cases in a year of which malaria alone was responsible for 4,00,000. Hence provision of additional hospital accommodation was made at Chittagong, Comilla, Imphal, Manipur Road, Gauhati, Sirajganj, Calcutta and Ranchi area. This involved an increase of 4,100 beds for Indian and 3,900 beds for British troops. Kohima was developed as a hospital centre to take three general hospitals and three convalescent depots. Dacca

was planned as a hospital centre with two general hospitals and two convalescent depots. In Ledo area all hospitals were expanded by two to three hundred beds. Hospitals were also provided at Midnapore, Jamshedpur and Cuttack. The total requirements of convalescent depots at that time were ten for Indian and seven for British troops of which six for Indian and six for British troops were already in existence. An additional allotment of four convalescent depots for Indian and one for British troops had been made but these were not in commission by then. By the end of June 1943, hospital accommodation in the Arakan area had also increased by 1,000 beds for Indian troops and 100 beds for British troops by the addition of three general hospitals at Cox's Bazar, Chittagong and Mynamati. One IGH(BT) of 500 beds from Comilla and one IGH(IT) of 1,000 beds had been housed in Dacca and were nearing completion. In Assam 1,000 beds for Indian troops had been added at Imphal and 2,000 beds for Indian and 500 beds for British troops at Kohima in four general hospitals. In Calcutta area gradually 3,900 beds were provided. Ranchi centre was planned to have, in due course, six general hospitals, two in Ranchi, two in Namkum and one each in Lohardaga and Chas. Another two hospitals of 800 beds for Indian and 500 for British troops, making a total of four general hospitals of 1,700 beds for Indian and 1,500 beds for British troops, had already been located in the area. This steady improvement in the provision of hospitals continued during the ensuing months. The forward holding policy was maintained and was further implemented by bringing the hospitals to the forward areas. The result was that two-thirds of the hospital and other medical installations of the Eastern Army were to the east of the Brahmaputra. This naturally reduced the extent of evacuation and allowed the early return of recovered personnel to the forward reinforcement camps. It was to implement this policy that two large hospital centres were planned in Kohima and Dacca.

In the Eastern Command and, after 1 October 1943, in the Fourteenth Army, the overcrowding of hospitals was a constant feature. Below are given extracts of the returns showing the number of beds authorised, equipped and occupied—53

<i>Authorised</i>		<i>Equipped</i>		<i>Occupied</i>	
Indian troops	British troops	Indian troops	British troops	Indian troops	British troops
<i>Eastern Army</i>		13/14 September 1943			
20,417	8,434	18,616	7,693	20,265	6,815
<i>Fourteenth Army</i>		16/17 October 1943			
12,700	2,290	10,400	2,290	12,377	1,974
		30/31 October 1943			
11,900	3,140	11,213	2,185	13,532	2,039
		13/14 November 1943			
12,100	3,800	11,113	3,100	14,620	4,023

<sup>53</sup> QR/HQ Fourteenth Army from 2 September to 15 November 1943



Owing to this overcrowding, adequate attention could not be given to the patients. Casualties had to stay in the hospitals for a considerable time before they could be evacuated. Owing to inadequate treatment the malaria relapse rate increased. Had the provisioning of hospital beds been adequate, casualties would have been treated fully in the Command/Army area. But by December 1943, many of the general hospitals were reorganised. This reorganisation, combined with the fact that certain hospitals had been closed prior to their moving forward, produced a marked overcrowding in the hospitals, especially in those in the Ranchi area. This was further aggravated especially in the Fourteenth Army area owing to the peak of the malaria season occurring at the same time and was relieved only by an increased evacuation to the Central Command.

Dacca had been established as a large hospital base by March 1944. This group of hospitals was specially formed to deal with the Fourteenth Army cases but this was not always possible owing to the operational difficulties. The result was that at times severe cases had to be evacuated to the base hospitals in India. The Dacca hospitals were capable of treating 5,000 casualties and it was estimated that by 15 January 1944, accommodation would be completed for a total of 5,900 beds. The following hospitals were at Dacca.—<sup>54</sup>

	<i>Indian troops</i>	<i>British troops</i>
No. 17 BGH	.	1,200
No. 62 IGH(C)	500	200
No. 63 IGH(IT)	1,000	
No. 76 IGH(IT)	1,000	
No. 77 IGH(IT)	1,000	

Two convalescent depots were opened in the area

GHQ policy was to evacuate all cases which would take over eight weeks to recover from the Fourteenth Army area to the base hospitals in the Central Command or Southern Army. Later, in the second quarter of 1944, it was decided to establish base hospitals at Ranchi and Dinapore for the treatment of casualties from the Fourteenth Army. The siting of base hospitals in more forward areas helped materially in the evacuation of casualties by reducing the time involved in the turn-round of ambulance trains.

Two more hospitals with a bed strength of 1,500 for Indian and 200 for British troops were located in the Eastern Command area at that time. Later, in September 1944, it was decided to utilise the Ranchi hospitals for local troops only; these were therefore unable to take patients from the Fourteenth Army.

The hospital cover at Calcutta was also causing concern and a revision of beds had been made. The future planning there was dependent on the following factors—

- (1) Formation of a new 1,000-1,600 bedded transit hospital.

<sup>54</sup> A/7/30/H(M)

- (ii) Release of one BGH there for its proper function as a field unit
- (iii) Formation of a RAF hospital of 500 beds
- (iv) Release of 300 'Air Raid Precaution' beds for military use by the Bengal Government

The total hospital cover required for the troops in the area was 2,300 for Indian and 1,200 for British troops. The hospitals available were just adequate for the purpose if extensions totalling 850 beds for Indian troops already planned were effected. It was anticipated that a majority of these would not be available for another four to six months and until then the situation had perforce to remain unsatisfactory.

A group of base hospitals with 4,200 beds for British troops had been planned in Ranchi by December 1944. Three IBGHs(BT)—3,000 beds—were already in position there. The remaining 1,200 beds for British troops were to be provided by No. 47 BGH which was to move from Calcutta in January/February 1945. To provide adequate cover in the convalescent depots for the base hospitals and field hospitals in Ranchi area, one convalescent depot for British troops was to open at Nankum. Indian convalescent cases from hospitals at Dinapore were sent to the convalescent depot at Patna<sup>55</sup>.

In June 1945, the medical services in the Eastern Command were divided into —

- (i) Medical arrangements for the Eastern Command troops
- (ii) Medical arrangements for the ALFSEA troops

A total of 12,533 beds was available for the Eastern Command troops. The sick and the wounded from ALFSEA were treated in three main hospital centres

- (i) *Dacca*

Field hospitals for Indian and British troops—5,900 beds

- (ii) *Ranchi*

Base hospitals for British troops—4,200 beds

- (iii) *Dinapore*

Base hospitals for Indian troops—2,000 beds

Casualties evacuated from ALFSEA passed through transit hospitals—No. 119 IGH(C) (1,000 beds), Alipore and No. 67 IGH(C) (700 beds), Dinapore. Thus, the total number of beds maintained in the Eastern Command for the ALFSEA troops was 13,800. The total of hospital beds in Eastern Command was 26,333. From 1 June 1945, 202 L of C Area (Assam) came under the command of the Eastern Command. There were important hospitals at Imphal, Manipur Road and Ledo. To provide hospital cover for the troops in Assam, which numbered approximately 1,50,000 at the time of take over from ALFSEA, 2,284 beds for Indian and 716 for British troops were handed over to the India Command by ALFSEA. In addition, three IGHs(C) at Gauhati, Manipur Road and Imphal, with a bed strength of 1,300

<sup>55</sup> A/7/30/H(M)

beds for Indian and 700 beds for British troops, were taken on loan from ALFSEA to augment the hospital cover until the ALFSEA units in the area moved out.

The re-capture of Rangoon resulted in a revision of hospital strengths and projects. The main interest centred in the future of the Dacca group of hospitals. It was anticipated that the line of evacuation from Comilla to Dacca would close and hospitals in Dacca would automatically cease to admit patients. Until 15 August 1945, ALFSEA casualties from the forward combat areas were evacuated through the ALFSEA hospitals in 404 L of C Area at Comilla and Chittagong and arrived at the Dacca hospitals, or were evacuated by the hospital ships to Calcutta. The Dacca hospitals treated and returned to duty all cases likely to recover within three months. The remainder were evacuated from Dacca to Sirajganj and thence to Calcutta for onward transmission to Secunderabad or by ambulance trains to the base hospitals in Dinapore or in the Central Command. The Dacca group of hospitals had been sited, in the autumn of 1943, as near as possible to the forward areas and it is interesting to record that in this group 1,33,123 cases were treated during 1943-1945.<sup>56</sup> The base hospitals for British troops in Ranchi were not used and all British cases were evacuated to Secunderabad since it had been decided to keep these hospitals as a reserve. It was considered that ALFSEA might unload a large number of cases on to the hospitals in India, at any time because hospitals in ALFSEA were kept full of the sick and wounded. This unloading of cases, however, did not occur as the war with Japan came to an end on 15 August 1945. Similarly, the hospitals at Dinapore also were not utilised to the full, but were used only to treat minor cases among the sick and wounded. The end of hostilities in Burma naturally resulted in the cessation of battle casualties. Sick, however, continued to be evacuated from the front to the hospitals in Eastern Command, which functioned till December 1945. The advent of peace meant that the building programme of hospital expansion was no longer needed. A stand-still was, therefore, ordered throughout the command and one by one the hospital projects were cancelled. Hospital planning in the Eastern Command had to be initiated a year ahead of the target date of completion and it was, therefore, inevitable that hospitals nearly completed were, as the war situation changed and finally ended, found to be unnecessary. In October 1945, 404 L of C Area comprising the port of Chittagong and the important camps at Comilla were incorporated in the Eastern Command. There were nearly 2,00,000 troops in the area at that time and the main hospital centres were at Chittagong, Comilla and Agartala. Thus, by October 1945, the Eastern Command had extended its eastern boundary to the whole length of the Burma border from Akyab in the south to Ledo in the north, a distance of 560 miles. The total strength of the troops in the command at that time was approximately 5,00,000 and the number of hospital beds available was 35,364.<sup>57</sup>

<sup>56</sup> A/7/30/H(M).

<sup>57</sup> A/7/30/H(M)

## Medical Stores And Equipment<sup>1</sup>

The medical stores organisation in India under DGIMS was instituted originally for military stores only. The scope of this organisation was later extended to include civil departments. Gradually non government institutions could also be supplied with medical stores by this organisation. To augment the supply of various medical stores, manufacture of certain of these stores was started in the medical stores depots. During World War I the manufacture of drugs in these depots had considerably advanced.

Just before the outbreak of hostilities in 1939, the civil commitments of the medical stores organisation were greater than the military. In 1937-38 civil issues were over twenty seven and a half lakhs of rupees and military just over eleven lakhs of rupees—a ratio of five to two. In January 1939, a committee under DGIMS reviewed the question of medical stores but did not suggest any changes in the organisation. The intention of the committee appears to have been to augment the output of the stores organisation and to turn it into a civil institution, but with the outbreak of hostilities the position regarding civil and military stores was reversed. In 1941-42 the civil budget for medical stores was thirty five lakhs of rupees while the military rose to three crores, a ratio of one to nine.

The arrangement for the supply of medical stores was peculiar. DGIMS operated in organisation, paid from the defence estimates but concerned predominantly with civil needs. He performed all the supply functions (provisioning, stocking and distribution), and not only purchased the medical stores both in India and abroad, but also manufactured some stores in his depots. DMS controlled the seven Medical Mobilisation Stores located at Rawalpindi, Peshawar, Quetta, Lahore, Lucknow, Meerut and Poona, where the equipment and stores received from the Medical Stores Depots of DGIMS were stocked for the field medical units, and kept ready for the immediate needs of mobilisation.

At the commencement of World War II there existed only six months stocks of imported stores and three months stocks of indigenous stores based on peace time requirements. In June 1939, orders to the value of seven lakhs of rupees were placed for stores imported and locally purchased, with the object of laying in stocks to further replenish the requirements of the field medical units. The stores so ordered plus the first replacement reserves already held by the medical stores depots made up a war reserve stock for five months and a reserve for field medical units for six months. Nearly all the items required had to be ordered (Stock Lag Indent) by the Director General India Stores Department (DGISD) from the United Kingdom.

<sup>1</sup> H/6/45/H(M) See also Volume on *Medical Stores and Equipment*

The normal time required for the supply of an indent of this magnitude in peace time would have been six months. Four and a half months after the indent was sent only 38 items out of 440 had arrived, some had been shipped and the balance was expected to be shipped at the earliest opportunity.

There was also an arrangement with DGISD that as soon as a state of war was declared an indent based on six months' supplies of stores required for the mobilised field medical units (Standing War Indent) would be complied with. This scheme also provided for the automatic replenishment, every six months, of the expendable stores contained in the indent and the supply of non-expendable stores as and when specially demanded. This indent, however, did not include the normal military and civil requirements. On 8 October 1939, DGISD informed DGIMS that the Standing War Indent had been taken up for compliance.

It will be apparent from the above analysis of arrangements that the margin of safety was very small, and any serious interference with transport or manufacture could lead to a serious shortage. For some time after the outbreak of hostilities the position remained substantially unchanged. DMS and DGIMS, however, agreed upon certain unit scales and DMS placed his demands in terms of units. The rest of the provisioning, and all the supply and inspection work, continued to be performed by DGIMS. DMS, on the other hand, continued to pass all sanctioned programmes and indents from the overseas forces to DGIMS.

Since the beginning of the war, Medical Stores Supply Committee under DGIMS had also been investigating local resources, increasing Indian production, and transferring items from the imported to the indigenous list. The production of drugs and dressings in the factories attached to the stores depots was being accelerated. DGIMS was purchasing from all available sources in India. He was thus able to supply the Medical Directorate with 50 per cent more than could have been expected. Yet the requirements still far exceeded the supplies.

The stores held by DMS were steadily being depleted, and it appeared certain that very little, at least so far as equipment and appliances were concerned, remained in the Military Medical Mobilisation Stores. The demands for equipment for the newly raised units could not be kept in abeyance. The scales of unit equipment were under revision and there was considerable delay in finalising them. The old units had to be re-equipped on a scale never contemplated before. All these demands had to be met from the meagre stocks available. The outlook seemed to be gloomy and any satisfactory arrangement almost impossible of realisation. The situation was further complicated by the fact that the 'Stock Lag Indent' and 'Standing War Indent' contained field equipment only, but the units in Egypt and Singapore were demanding ordinary peace-time stores. This in turn threatened to deplete further the existing stocks.

## FACTORS LEADING TO THE TAKING OVER OF THE MEDICAL STORES ORGANISATION BY DMS

Apart from the original lack of reserves, the shortages appeared mainly due to the lack of systematic provisioning. The organisation of the medical stores depots had been permitted a large measure of independence. No central ledgers in the accepted sense were kept and no periodical returns were rendered. The exact position of stocks could not be determined. DMS had no control over these depots and experienced great difficulty in obtaining detailed information necessary in order to meet all contingencies. The first and foremost remedy, therefore, was to evolve a proper provisioning scheme which could solve the existing difficulties. The other solution was to get immediately a substantial release of stores from the United Kingdom or their early shipment from the United States of America. The G-in-C ordered the PSOs Committee to discuss in detail the entire range of supplies of the medical stores. This committee met in February 1941. The main recommendation of this committee was that 'the DMS should undertake the whole function of provisioning as understood in the MGO's Branch' and that DGIMS should continue to hold the stores.

The above recommendation implied that DMS was responsible for (a) estimating the total quantity of stores in detail needed for the initial equipment of new units, maintenance and authorised reserves for all military formations overseas (including Ceylon, Mauritius and Iraq) up to the extent for which India had accepted the responsibility and for the maintenance and authorised reserve of all military units in India, and (b) placing demands for stores for the above purpose before the procurement authorities. In order to estimate the total requirements properly DMS had to get a complete picture of what stocks were held and where by DGIMS on his behalf. It was also important that the stocks at the disposal of DMS but held by DGIMS should be accounted for separately from the stores for civilian requirements. A conference was held in June 1941, to examine the whole question and decide how best the stocks could be separately accounted for between DMS, the civil and the Central Provisioning Office (CPO). It was agreed at this conference that DGIMS should explain to his various depots the basis and method of division of stocks between the civil and military.<sup>2</sup> DMS thus became responsible for forward estimates of adequate stocks to meet all known commitments for initial equipment, reserves and maintenance.

The above arrangement did not prove altogether satisfactory. The following difficulties were inherent in this arrangement. (i) DMS could not verify the actual stock position. Under the existing system the first opportunity which he got of ascertaining the quality of stores was many months after they had become the property of the Defence Department. (ii) Once DMS submitted indents to DGIMS he had

<sup>2</sup> It was also agreed at this conference that a central purchasing officer be appointed so that common user items could be dealt with by the Director General of Supply.

no effective control or information regarding the stores to facilitate forward planning and disposal of stores. (iii) DMS could not supply shipping forecasts as he had only meagre information about the weight and cubic capacity of stores. (iv) DMS could not expedite the despatch of stores or assure himself that they had been despatched. He could neither answer queries from the overseas forces regarding the supply position nor did he know with any degree of accuracy what stores at any time were available with the forces.

DMS thus had no control over military stocks in the depots under the control of DGIMS and was unable 'to progress' the unit demands despite the fact that he was responsible for the forces receiving these stores. It was, therefore, decided that DMS should take over certain stores accommodation and personnel from DGIMS, and control equipment and stores sufficient for the initial supply of the field medical units and for reserves and maintenance of the forces under the administrative control of the Government of India. The first army medical stores depot thus came into being in February 1942. But the supply of stores and equipment to the overseas commands and peace-time hospitals still remained the responsibility of DGIMS. This dual control was found to be unworkable. Hence from April 1942, DMS gradually took over full responsibility for the provisioning, accommodation, stocking and distribution of medical stores and equipment to all military medical units. The factories attached to the medical stores depots, however, continued to remain under the control of DGIMS.

The assumption of this new responsibility gave rise to problems which were as immense as they were numerous. The staff in GHQ was inexperienced in all aspects of stores management as previous to this their function was that of merely forwarding correspondence to and from DGIMS. Such depot personnel as were already in military employ were almost equally ignorant, since their experience had been limited to the mere building up of initial field equipment. An attempt was made to offset this lack of experience by absorbing personnel formerly under DGIMS who had experience in bulk storage. Simultaneously officers of the Medical Directorate approached the MGO staff for instruction in the methods of provisioning. Thus a nucleus of depot personnel and medical stores officers came into being around which the future stores organisation could be built. But the greatest problem was the acquisition of suitable stores accommodation and training of personnel. The task of distribution was further complicated by the fact that certain much needed items were in short supply. As the armed forces grew in size, the Priced Vocabulary of Medical Stores grew larger and more intricate, and as distances between the stores and the forward areas became greater so also did the problems that beset the medical stores organisation. In order to give some idea of these problems reference must now be made to the store organisation that was evolved and its important functions. Only certain aspects, such as provisioning, preservation of stores, supply of some special items, different types of units, distribution and financial aspects are discussed here.

## THE MEDICAL STORES ORGANISATION AT GHQ

It may be recalled that at the beginning of World War II there was no separate section which dealt purely with medical stores. DDMOW with one staff officer dealt with stores matters and maintained liaison with DGIMS. The first expansion was in 1941, when a separate head of the section was appointed as DDL & S in the rank of colonel with one ADMS, one DADMS, three SCs and one OS. In 1942, one more DADMS and a SC were added. In 1943, the establishment was further increased by two more ADMS, one DADMS and four SCs. Ultimately, in 1944, when the section had taken over the entire responsibility for stores, the officer staff consisted of 1 DDL & S, four ADMS, one ADMS (Investigation Team), nine DADMS or DAGs, six SCs, one civil bank officer, one OS and four CGOs. The stores section was sub divided into seven sub-sections, i.e., administration, planning, provision, standardisation, distribution, ordnance and statistics.

*Administrative Section* This section was responsible for the posting and training of staff and for all policy matters connected with store management. The section covered such matters as security, monetary allotment, stores handling gear, buildings, cold storage, stocking, fire fighting measures and powers of write off, etc. The officers of this section spent a considerable portion of their time on tours, in visiting the stores units and settling their difficulties on the spot.

*Planning Section* The function of this group was to prepare standard detailed instructions of stores procedure, improve methods of stock holding and suggest measures to cut down the time lag in the despatch of stores from the depots to the consumer units. Further, they were responsible for preparing directives relating to security measures, prevention of losses through deterioration, pilfering or faulty packing. In order to fall into line with the ordnance procedure it was found necessary that the ADMS of this section should be an ordnance officer. The MGO made one of his experienced Officers available to take up the appointment of Assistant Director of Ordnance Service (ADOS) on the staff of DMS 2.

*Provision Section* This section was responsible for calculating and placing demands for the total quantity of medical stores and equipment required for the initial equipment of all units and for their maintenance and reserve requirements. It reviewed previous demands to ensure that there had been no over or under provisioning. An important function was 'the progressing' of all demands and the follow up of receipts wherever there was delay in supply. Where wastage figures were not available, especially in respect of newly introduced items, the section sought the advice of the consultants concerned. The officer in charge of the section represented DMS on the medical panel of the Supply Department and also on the committee which classified stores to be procured into imported and indigenous.

*Standardisation Section* This section might well be called the professional section of the medical stores organisation. It had to



deal with all technical and professional problems and had to contact various consultants and advisers on the staff of DMS concerning such subjects as deterioration, toxicity of drugs, substitutes, equivalents, special storage including temperature, humidity, control, tropic proofing, transport by air and in fact all conditions affecting the specifications of medicines, instruments and appliances. This work could not have been carried out satisfactorily without the assistance of an inspection organisation under MGO. They had to scrutinise constantly the PVMS and carry out necessary additions and deletions in the light of the latest medical literature and of advice from the consultants. This section had also to carry out all investigations and lay down specifications, in consultation with the MGO Branch, Chief Inspectorate of Medical Stores, in regard to all new equipment.

*Distribution Section* . This section was responsible for the distribution of medical stores and equipment in two phases. The first was the distribution from receiving points to the various stores holding units in accordance with their needs to maintain balanced stocks. The second phase of distribution was the actual issue to the consumer units. To avoid delays, a policy of decentralisation to the maximum possible extent was adopted. The section was also responsible for the building up of all new equipment and special sets for different branches of the service or for special operations.

*Ordnance Section* : This section was responsible for co-ordinating the requirements of ordnance and engineer stores for all medical units. The most important work of this section was the preparation of war equipment tables (WET) of all medical units.

*Statistical Section* : This section furnished, with the help of Hollerith machines, various kinds of data required for provisioning, and distribution. The advantages accruing from the statistical data were immense. It supplied the Provision Section with the all-India stock position, receipts, dues-in, dues-out, initial and maintenance requirements, stores margins, wastage rates, etc. The information as regards items in short supply enabled the Provision Section to take timely action 'to progress' and procure such items expeditiously. Data provided by the Statistical Section to the Distribution Section helped in the equitable distribution of available stores and equipment to the various medical units and assigning appropriate priority, especially in the building up of new units. Preparation of controlled lists of items was also facilitated. The staff dealing with medical stores at Headquarters Armies/Command in India in April 1944 included one DADMS and two WOs class I. In addition, an ADMS (stores) was posted at each of the Headquarters of Southern Army and Central Command.

The principal responsibilities of this staff were :—

- (i) to organise systematic indenting by units;
- (ii) to plan proper and equitable distribution of medical stores within Armies/Command,

- (iii) to organise filling and circulation of gas cylinders which were in extremely short supply,
- (iv) to see to the repair of instruments and surgical equipment,
- (v) to establish proper liaison between the consumer units and medical stores organisation

#### THE INSPECTION ORGANISATION

The responsibility for the procurement and inspection of drugs, dressings and surgical instruments and equipment required by the Government was vested at first in DGIMS. In the absence of specific acceptable standards, equipment was being purchased from trade and brought into use. This resulted in numerous complaints by the surgeons and physicians about the quality of equipment issued to them. Hence, in order to standardise inspection, the Inspectorate of Medical Stores under the Controller General of Inspection was formed early in 1942. The Chief Inspector of Medical Stores (CIMS) was located at Army Headquarters, Delhi and the Deputy CIMS at the Headquarters Inspectorate of General Stores, Kanpur. This organisation was made responsible for formulating standards of inspection and accepting all medical stores and equipment required for both civil and military needs.

To assist the existing manufacturers of surgical instruments in improving the quality of their produce, detailed specifications and drawings for simple instruments of general surgery were prepared by the inspectorate organisation. Trial orders were placed on different firms for small quantities of instruments, their products were inspected and technical reports enumerating all defects issued with suggestions for improvements. These reports considerably helped the industry to effect improvements in the production of instruments. But the quality of instruments produced still did not conform to the standard laid down by the Government. In view of the considerably increased demands for instruments, it was essential to harness all the potential sources on a scientific and technical basis. The medical inspectorate was, therefore, entrusted with the additional responsibility of research, design and development of all medical stores. To achieve this end a surgical instrument development organisation was established with headquarters at Sialkot where most of the potential resources then existed. The process of manufacture of the instruments at every stage was controlled by the Government technicians. In the initial stages of development the standard of one source of supply for a particular item was adhered to. This policy considerably helped to plan scientifically the manufacture of instruments.

CIMS established a chain of inspection depots first at Bombay, Madras, Calcutta and Lahore, and later in Delhi, Karachi, Lucknow, Sialkot and Kanpur, with technical officers to inspect the bulk supplies of medical stores delivered from the trade in India. After inspection, stores were passed on to the Army or civil medical stores

depots. The ordnance inspection laboratories in Kanpur exercised control over instruments and appliances by means of check samples from bulk supplies.

In November 1942, the 'Grant Massie Committee' reviewed the whole question of instrument production. They classified the instruments into those which could be manufactured in India and those which should be imported from the United Kingdom or the United States of America. The committee also recommended that the manufacture should be in accordance with specified standards.

Officers of the Inspectorate of Medical Stores and Directorate-General of Munitions Production made exploratory visits to Lahore and Sialkot where most stores of this type were being manufactured. Based upon the information thus obtained, they formulated a long term and a short term development policy to assist the trade. It was decided to initiate development in Sialkot. In the first instance this development was confined to four firms and in order of importance it consisted of —

- (i) Provision of heat treatment furnaces and instruction in heat treatment methods.
- (ii) Maintenance and control of all steel stocks and initiation of a steel utilisation system based on metallurgical and practical testing.
- (iii) Provision and instruction in the use of gauges, templates and measuring equipment.
- (iv) Provision and instruction in the use of forging dies
- (v) Substitution of machine methods for existing hand methods
- (vi) Improvement of hand methods by special training
- (vii) Improvement of general production layout

By July 1943, this development had reached a stage when it was found possible to include many other firms both in and around Sialkot and at Bombay and Calcutta. Actually ten firms were in the process of developing production of surgical instruments on an 'immediate improvement' basis. This improvement was achieved with the assistance of specialists from the firms already experienced and from the establishment installed by the Controller-General Inspection. These specialists were sent to various firms in order to equip them with the basic requirements for instrument production. It was also found necessary to distribute the available technical staff among these firms to control and supervise their output. But an acute shortage of imported raw materials for surgical instrument industry and the paucity of the trained staff made it difficult to expand. Despite these difficulties, towards the end of 1943, the short term improvement in standards was established to a large extent and the initial output of 1,50,000 instruments was achieved.

Besides the shortage of technical personnel, other difficulties were also met with. Machine tools ordered from the United Kingdom did not arrive; pyrometer equipment was not available in sufficient quantities, and indigenous steel proved so unreliable that production

could be maintained only by means of constant metallurgical investigations and concentration of the experienced technical personnel on heat treatment

For the long term development plan the intention was to bring experts from the United Kingdom. This, however, had to be abandoned, and ultimately only one foreman arrived and was absorbed into the development organisation

Progress was reviewed after the first programme of production and it was found that further improvement in the standards was still necessary. It had not been possible to provide either tool room capacity or small components or special cutters and tools. Accommodation for development and inspection staff was so inadequate as to prevent efficient working. Machine tools ordered by the firms had not arrived, and eventually proved quite unsuitable both from the point of view of cost and type, and were not taken by the firms. Requisite standard of steel was the main difficulty in production. Large quantities of steel originally tried in the manufacture of surgical instruments had to be scrapped in 1944, as a result of defects in manufacture and adverse metallurgical reports. Ultimately, suitable steel had to be ordered by air from the United Kingdom.

As a result of control, supervision and assistance by CIMS, the quality of indigenous manufactured surgical instruments improved considerably but it could not even yet come up to a really high standard. Nevertheless, production of half a million surgical instruments, during the war was a remarkable achievement for the Indian industry, which at the start of the war was only in an embryonic stage.

#### THE MEDICAL STORES INVESTIGATION TOURING TEAM

The Army Medical Stores had to face a number of practical problems such as the necessity of laying down a workable procedure for indenting by medical units. In order to investigate such problems a Medical Stores Investigation Team was formed in February 1943 and consisted of two officers. The functions of the team were as follows —

- (i) to give instruction to medical units in correct indenting,
- (ii) to establish proper liaison between the various distributing authorities, especially at ports,
- (iii) to explain the correct system of auditing by local audit officers,
- (iv) to make sure that medical units did not hoard stores over authorised scales or in excess of actual requirements,
- (v) to study the position of imported stores, which would finally lead to the taking over by DMS of Medical Stores Transit Depot at Bombay and proper accounting at this depot,
- (vi) to collaborate with the Statistical Section and Finance Department for correct maintenance of 'dues in' figures,
- (vii) to survey all activities of stores holding units

The success of the team was greatly enhanced by a close liaison with DDE & S. Although the team was not a part of the Stores Section of the Medical Directorate, the head of that section and his various officers were invariably consulted before starting and at the conclusion of each tour. Should a similar team ever be constituted in the future, this last point is of major importance since it would have led to an impossible situation if the DDE & S had felt that his efforts were being opposed by an independent organisation.

#### ARMY MEDICAL STORES

The assumption of responsibility by DMS early in 1942, with regard to storage, supply and distribution of military medical stores and equipment involved the necessity of reorganising the seven existing Medical Mobilisation Stores together with the taking over of the Civil Medical Store Depot at Karachi and the forming of an Army Medical Stores (AMS) at Bombay. Thus, in February 1942, 9 AMSs were formed :—

<i>Class I</i>	<i>Class II</i>	<i>Class III</i>
Lahore	Poona	Peshawar
Bombay	Meerut	Rawalpindi
Karachi		Quetta
		Lucknow

In July 1942, the AMS Lucknow was raised to a class I establishment owing to the availability of accommodation there and its central position from the point of view of rail or road communication.

Not long after, new AMSs had to be established owing to the need for further expansion and acute shortage of storage accommodation in the existing stores. These additional AMSs were established at :—

Class I—Calcutta	in January 1943
Class II—Delhi	in February 1943
Jhansi	in April 1943
Raipur	in April 1943

The AMS installations were directly administered by the Medical Directorate.<sup>3</sup> The establishments of different AMSs were as under.—

<sup>3</sup> The main functions performed by the AMSs were as follows —

#### AMSs

- Bombay— Supplied stores to medical units within its area of supply, including Ceylon  
Received bulk of imported stocks and held specialised equipment like dental  
and ENT

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AMS	Officers	VCOs	Other ranks (both Indian and British)	Superinten- dents	Assistant Superinten- dents	Clerks	Civilian personnel
Bombay	3	6	35	1	7	25	Employed lo- cally on 'as required' basis subject to cer- tain monetary limits
Lahore	3	7	29	1	8	30	
Lucknow	3	5	25	1	6	34	
Karachi	3	6	34		6	25	
Calcutta	3	7	34	1	8	25	
Poona	2		13			6	
Meerut	2	3	11		6	7	
Delhi	2	3	17		3	6	
Raipur	2	3	11		6	7	
Jhansi	2	3	11		6	7	
Rawalpindi	1	2	9			3	
Peshawar	1	2	6			4	
Quetta	1	2	6			4	

## RESERVE BASE MEDICAL STORES

Early in 1944, in connection with forward planning, two reserve base medical stores (RBMS) were formed *viz*, No 36 RBMS at Panagarh and No 37 RBMS at Avadi (Madras). These were, respectively, under the administrative control of No 3 Reserve Base, Panagarh and No 4 Reserve Base, Avadi. The establishment of each of these units was as follows —

Commissioned officers	3
WOs	2
VCOs	2
Other ranks (Indian and British)	37
NCs(E)	173

The function of No 36 RBMS was mainly to supply medical stores to the stores holding units in ALFSEA and to the units in the operational areas as well as the onward transmission of medical stores to the Fourteenth Army. No 37 RBMS held reserves for both the India Command and ALFSEA including reserves for overseas forces and the civil requirements of the SEAC. It was also responsible for holding 'Maintenance Blocks'.

- Lahore— Supplied to units within its area of supply and built up sets of initial equipment, also held medical items for RAF and veterinary requirements
- Karachi— Supplied stores within its areas of supply and to overseas forces also received a portion of imported stocks
- Lucknow— Supplied stores to units within its area of supply
- Meerut— Held stores and equipment for British units and special items
- Poona— Supplied X ray and electro therapeutic equipment to all units
- Rawalpindi— Built and held sets of initial equipment, also held microscopes
- Quetta and Peshawar } Built and held initial equipment
- Calcutta— Supplied stores to units within its area of supply and also held reserves
- Delhi— Held anti malarial equipment frustrated cargo and items not mentioned in vocabulary of stores
- Raipur and Jhansi } Held reserves





by their keeping a vigilant eye on all consignments of medical stores and ensuring their correct onward despatch to the consignees

This unit, although located at Lahore, supplied squads to all the important AMSs and the import depot at Bombay for escorting consignments of medical stores. The officer in charge of these squads (a major) was responsible for the movement of medical stores throughout India. He was to arrange all priorities required by the AMSs and base depot medical stores. He was also to co-ordinate the movements of medical stores into the operational areas, investigate all losses in transit, personally visit all points where there were serious hold ups and suggest remedies on the spot. This measure considerably reduced delays as well as losses of valuable stores in transit. It was found from experience that the usefulness of this unit would increase if it was split up into separate groups and if these groups were posted as escort squads to all important AMSs, Import Depots and important ports such as Calcutta, Vizagapatam and Madras.

To co-ordinate action and to have much closer control over the movement of stores for SEAC, one transit depot medical stores was raised on 31 August 1943, at Aurangabad. It was moved to Vizagapatam in 1944. Stores for the maintenance of overseas forces under the control of SEAC were exported through the port of Vizagapatam.

The main functions of this unit were —

- (i) transshipment of stores for overseas,
- (ii) issue of medical stores to the ships in the harbour,
- (iii) issue of medical stores to the units passing through, which had to be equipped in an emergency,
- (iv) supply of stores to Ceylon

#### THE ARMY MEDICAL IMPORT DEPOT

Prior to DMS taking over the stores organisation, a transit depot medical stores existed at Bombay and was administered by the Department of Supply. This depot received all imported medical stores and distributed these to the different consignees. Early in 1944, this depot was placed under military control, and its designation was changed to 'Army Medical Import Depot'. But it continued to receive all imported medical stores both for military and civil purposes.

In time this depot developed into a 'disposals cell'. The establishment of this unit consisted of —

Commissioned officer	1
Quartermaster	1
WO	1
VCOs	1
Other ranks	2
Civilian supervisory staff	2
Civilian clerical staff	4
Civilian subordinate personnel	21
	As required up to a monetary limit of Rs 20,000 per month

## BASE DEPOTS MEDICAL STORES

These were responsible for supplying medical stores to all depot medical stores in the forward areas and base general hospitals located within their areas of supply. Ten Indian base depots medical stores were raised. They were located in Kirkuk (Iraq), Colombo (Ceylon), Bangalore, Asansol, Gauhati (later Chittagong, then Rangoon), Manipur Road (later Malaya), Chittagong, Singapore, Panagarh and Lucknow, respectively.

The establishment of each of these units consisted of :—

Commissioned officers	2
WOs	2
VCO	1
Other ranks (Indian and British)	22
NCs(E)	65

## DEPOTS MEDICAL STORES

These were responsible for supplying medical stores to the field medical units located in their areas of supply. In all, twenty-five depots medical stores were raised. These served the medical units in India, Assam, Burma, Ceylon, Malaya, Iraq and the Middle East.

The establishment of each of these units consisted of :—

Commissioned officer	1
WOs	2
VCO	1
Other ranks (Indian and British)	20
NCs(E)	49

There were also fourteen sub-depots, serving the medical units in Arakan, Burma, Singapore, Malaya, Hongkong and Andamans.

## TRANSIT DEPOTS MEDICAL STORES

One transit depot medical stores was located in Lahore to perform the following functions :—

- (i) The escorting of medical stores of operational urgency and of great value from an Army medical store depot to the consignee units ;
- (ii) the tracing of any stores lost in transit ;
- (iii) the handling of stores from the bases into the dock areas and their loading into ships for onward transmission to the theatres overseas.

It was found that in a majority of cases the delay in the receipt of stores by the consignee units was due to the transshipment difficulties at junction stations, or at the ports. Often the consignments were held up at the junction stations and mislaid. It was, therefore, decided to post squads of stores personnel at important loading stations, transshipment bases and ports, so that the delay could be avoided

## THE TRANSPORT FOR MEDICAL STORES

There was an acute shortage of railway rolling stock and road transport. It was, therefore, suggested that a small transit shed be provided at each load point in order to maintain the quick turn round of railway wagons and to provide a means of facilitating the placing of regular demands for road transport. Two sheds were ultimately provided, one at Lucknow, area 4,000 square feet, and the other at Dadar (Bombay), area 7,000 square feet. The problem of road transport however, continued to cause difficulties. The QMG finally asked the station staff officers to arrange for transport on 'as required basis' from the general purposes transport pool or to provide hired transport. This was the position till August 1945.

Towards the end of 1945, the whole question was reviewed and in early 1946, regular transport was authorised for each of the stores on the scale given below —

	AMS Lahore	AMS Lucknow	AMS Bombay	36 RBMS	Army Medi- cal Import Depot Bombay
Lorries 3 ton	3	3	6	5	2
Truck 15 cwt	2	2	2	1	1
Motor cycles	1	1	1	1	—
Bicycles	4	4	4	2	1

## RELATIONSHIP WITH OTHER BRANCHES, DEPARTMENTS AND AGENCIES

The medical stores organisation had constantly to liaise with other branches of the GHQ, departments of the Government of India and agencies connected with the supply of medical stores. The relationship with some of them is discussed below.

*General Staff Branch* The General Staff Branch was responsible for giving the information regarding orders of battle, strength of the forces, number and type of medical units required for operations, immediate and long term, and appreciations of all operational plans. The DMS was thus kept informed of the general staff plans and could formulate his medical plans accordingly.

*MGO Branch* The MGO Branch supplied ordnance stores and clothing which formed a considerable part of the equipment of medical units. Although the DMS was not responsible for the supply of non-medical stores to the medical units, he recommended to the MGO the details of the items required in the WETs of the medical units. An ordnance cell was established in DMS2 to deal with the preparation of and additions and deletions in WETs of medical units. To enable the MGO to take provision action for ordnance stores and equipment for the medical units, information was provided in advance by the DMS regarding the number and types of units which were required to be raised during a particular period. Medical

## CENTRAL RETURNED MEDICAL STORES DEPOT, LUCKNOW

The magnitude of the work relating to the disposal of medical stores and equipment and to the disbanding of units was enormous and it was found necessary to establish a central receiving unit for this purpose. At first this task was assigned to No. 35 Base Depot Medical Stores and No. 6 Depot Medical Stores, located in Lucknow. In May 1946, both the units were amalgamated to form the Central Returned Medical Stores Depot. The depot received returned stores and after reconditioning, distributed them to the store-holding units. Its activities increased considerably to an extent which had not been envisaged correctly in the beginning. In addition, accommodation for storing the stocks was extremely limited and vast quantities had to be stacked in the open for want of covered space. The average daily receipt of returned stores was between 80 and 160 tons which had resulted in the accumulation of about 2,000 tons of stores. Although special teams of inspection personnel from the Controller General Inspection were attached to this depot for categorisation of stores received from the disbanding units, yet the volume of stores arriving was so great that it could not be coped with by the staff. By the end of July 1946, the depot had moved to Campbell Lines in Lucknow, after having changed its location twice previously. All this time the stores had been pouring in from the disbanded units. Out of a total tonnage of about 4,000 received in the depot, only about 700 had been cleared. Besides, in spite of strict security measures, it appeared that pilfering had been going on. In October 1946, special officers from the Medical Directorate, accompanied by the military finance authorities, visited the depot with a view to finding out ways and means for a speedy clearance of the accumulated stores. It was realised that this huge accumulation was attributable to the shortage of trained staff, changes in the depot location and bad documentation by the units. Immediate remedial measures were devised. The officer staff was increased to three (officer commanding being a major) ; the labour strength was augmented by 150 civilian labourers, and 150 IORs, the inspection teams were progressively raised to seven and several trained assistant superintendents were temporarily drawn from other AMSs and attached to this depot. The security measures were tightened by the erection of a barbed wire fence around the entire barrack area. Special instructions were issued for improvement in documentation by the returning units.

The inspection teams were responsible for the inspection of all surgical instruments and testing and reconditioning the drugs and dressings. Unserviceable drugs, vaccine, and sera were destroyed completely, unserviceable surgical instruments were broken up beyond possibility of further use and sent to the salvage depots as scrap metal. Repairable items were despatched to the depots responsible for this work. These measures improved matters, although when the depot was eventually disbanded in November 1948, there were still 30,000 packages of unchecked stores. These were ultimately handed over to the armed forces medical stores depot (ex AMS), Lucknow.

A medical branch of CPO was organised in the middle of 1941 under the control of an ADMS with the object of taking over from the DMS responsibility to meet the demands of forces in the Middle and Far East and also to provide for the needs of countries in the Eastern Group which could not be found from local sources. The CPO medical staff was attached to the Medical Directorate for training. The Medical Directorate also accepted responsibility for providing the following information: (a) the data on which provision action for the Middle and Far East had been taken, (b) the procedure in force for calculating the requirements and making forward provision programmes, (c) the scope, in detail, of the provision already made by India for the Middle and Far East, (d) the list of medical stores which were not obtainable in India and which the Middle and Far East had been instructed to obtain from the United Kingdom, and (e) the details of stocks and dues in to be transferred to the CPO account.

In November 1941, when the medical branch of the CPO was weaned away from the Medical Directorate with its records of provision action and stock schedules, the responsibility for all future provision action for medical stores on behalf of the Middle and Far East devolved on the CPO. Thereafter, the responsibility of the Government of India was confined to making provision for (a) her own internal forces, (b) any forces raised for overseas with their reserves and (c) the maintenance and reserves of any overseas forces for which she was responsible.

The responsibilities of the Medical Directorate and the CPO medical branch for the supply of medical stores to different countries were as follows —

<i>Medical Directorate</i>	<i>CPO</i>
India including SEAC	Middle East (constituting Egypt, Palestine, Sudan, Kenya, Uganda, Tanganyika, Aden and operational areas within Middle East Command)
Ceylon	Far East including Malaya
Iraq	Australia
Persia	New Zealand
Mauritius	Burma
Seychelles	Hongkong
	North and South Rhodesia
	Nyasaland

In December 1941, responsibility for military medical supplies in Burma was transferred from the CPO to the Medical Directorate. Medical stores of CPO were kept all the time in the medical stores depot of DGIMS.

The Medical Directorate, when temporarily short of medical stores, had received assistance from the CPO to whatever extent the latter were in a position to help from their stocks. From time to time the CPO had also been offering stores which were surplus to their requirements. The demands of DMS on the United Kingdom

advice was also given in order to evolve the correct type of equipment. In order to ensure that only standardised stores and equipment were held in AMSs the Controller General of Inspection was made responsible for the research development, fixing specifications and inspection of medical stores <sup>4</sup>

3) *QMG's Branch* · The QMG's Branch arranged transport for the medical stores both within and outside India and for the items that were necessary for the manufacture of medical stores. The DMS had also to depend on the QMG for certain raw materials required in the manufacture of insecticides and larvicides. Early in 1945, it was considered expedient to transfer all hygiene chemicals<sup>5</sup> from the Medical Directorate to the QMG's Branch.

*Engineer-in-Chief* · Engineer-in-Chief supplied some of the important items such as air conditioning plants, refrigerators, ice boxes, ice making machines, desert coolers, fans, lighting sets, etc.

*Supply Department* · After the separation of military stores from the civil control, the Supply Department controlled the planning and purchase section of the DGIMS. The DGIMS was adviser to the Supply Department. This meant that the Medical Directorate, the Central Provision Office and the office of the DGIMS were required to place their firm demands on the Director General Supply for their requirements of medical stores. The decision regarding procurement in India or abroad was also taken by the Supply Department. In order to categorise items into indigenous and imported there was a Technical Screening Committee which met at intervals to take stock of the exact productive capacity of various items in India. The DMS maintained continuous liaison with the Supply Department, especially in respect of progressing of indents, through Medical Store Panel meetings.

*CPO* : A conference of the representatives of the Dominions and the Eastern Group Countries was convened in October 1940, in New Delhi to secure maximum production of war supplies for the Armed Forces serving in the Eastern Group Area. To coordinate and centralise the requirements and the production of the constituent members of the Group, the Eastern Group Supply Council was set up. A military Central Provision Office was also established to provide the Council with data for supply action and to receive and satisfy maintenance demands presented by the local provision offices established by the military commands in the Eastern Group countries and the eastern theatres of war. In the case of medical stores the chief supplying country was India. All sources had to be tapped before placing demands either on the United Kingdom or the United States of America in order to conserve shipping.

<sup>4</sup> See page 342

<sup>5</sup> Hygiene chemicals transferred to RIASC included the following foot powder, spiritus methylatus, outfit water sterilising, tablet dechlorinating, bleaching powder, alumina sulphate, DMP, DBP, anti-mosquito cream, DDT, paris green, pyrethrum solution, sodium arsenite, soap stone powder, of Kieselgurh sodium thiosulphate, triton and xylene

on the India Supply Mission, Washington. As this system caused to the indentors some confusion concerning the actual items transferred to the United States of America for procurement, in November 1944 a definite procedure in respect of diversion of demands from London to Washington was evolved. Under this revised procedure DGISD intimated to the Supply Department (American purchase section) the items of indents which were not available in the United Kingdom. If the value of the stores in the indent was over one thousand dollars they were obtained under the lease/lend arrangement. When the value of the stores was less, these were procured on cash payment. The limit for the purchase of stores by cash was later raised to two thousand dollars. The quantity could be increased or decreased according to the stock position of the stores at the time of the preparation of the indents. Another special point to note was that a certain item might be in short supply in the USA, so that unless the India Supply Mission was briefed fully regarding the necessity of stores required there was the possibility of supply being held up. Progressing of such indents was undertaken by the American purchase section of the Supply Department.<sup>1</sup>

#### THE UNITED KINGDOM

The GHQ Co ordination Committee reviewed from time to time the various aspects of supply of stores. In February 1941, when the question of equipping medical units for overseas and the provision of new medical units was discussed, the supply position of the imported medical stores gave cause for anxiety. It appeared that the medical units included in the '1940 Expansion' and '1941 Replacement' schemes would not be ready until well into 1943, nearly eighteen months after their infantry formations had concentrated. It was, therefore, felt that unless the general supply position of the imported medical stores was set right, medical units could not be raised by specified dates. The time lag in the fulfilment of demands for the imported items was generally twelve to eighteen months.

The Committee's recommendations were —

- (i) To prepare temporary medical equipment tables based on the supply position and taking into account the time lag in securing compliance of indents.
- (ii) To minimise time lag, India Office to be asked to place orders for medical stores without calling for tenders as for ordnance stores.
- (iii) To ask India Office for automatic shipments of medical stores from the United Kingdom on an agreed percentage basis of their production.

<sup>1</sup> Items normally obtained from America and Canada were —

Penicillin, Mepacrine DDT Chinoform Antitoxin gas gangrene Aether Adexolin Capsules Chloroform Ethyl Chloride Potassium permanganate Multi vitamin tablets Oleum Chenopodii Aerosol Bombs (Insecticide) DMP DBP Mass radiography and other X ray equipment.



were normally passed to the Ministry of Supply and simultaneously to the War Office. Against his demands the stores were obtained not only from War Office stocks in London but also in some cases from the stocks held by the CPO in India which were under direct War Office control.

With a view to informing India of the capacity for production and the availability of medical stores in the Eastern Group countries other than India, the CPO used to provide the DMS with lists of such items from time to time.<sup>6</sup>

Owing to the lack of suitable machinery, the capacity for production of various medicinal tablets in India was limited. The CPO, therefore, explored the possibilities of supply from other countries. In certain cases raw materials were offered with a view to getting the same made into tablets. Mepacrine powder was one of such items.

To avoid any confusion, separate series of indent numbers were allotted to the military, civil and raw material indents placed on the CPO by the DMS.

#### THE UNITED STATES OF AMERICA

It was possible to obtain from the USA many of the items which were not available in the UK. When the lease/lend arrangements were finalised in November 1943, the position concerning the obtaining of supplies from the USA eased.

In the early stages the Defence Services demands from India were normally sponsored by the War Office and were submitted through the British Army Staff, Washington. In certain cases the demands were passed by the War Office to DGISD, who placed them

<sup>6</sup> *Items available from Australia and amounts available at once or on short notice —*

Atropine and Salts 500-1,000 oz Amyl Nitrite Capsules 5,000-10,000. Barium Sulphate (X-ray)—Large quantities Chlorbutol—Up to two and half tons per annum. Creta Praep—Almost unlimited. Ether (Anaesthetic)—100 tons Ethyl Chloride (Anaesthetic)—25,000-50,000 tubes Homatropine Hydrobromide—Possibly to meet all Indian requirements. Hydrogen Peroxide—Up to 50,000 lb per annum Hyoscine Hydrobromide—Many hundreds of ounces Kaolin—Large amounts Magnesium Carbonate (Pond and Levis)—100 tons per annum Magnesium Sulphate—Hundreds of tons per annum Magnesium Trisilicate—Up to perhaps twenty-five tons per annum Paraldehyde—Two and a half tons annually Plaster of Paris (Surgical type)—Many hundreds of tons per annum. Proflavine—Many hundreds of pounds per annum Syringes Hypodermic "Record" Type—2 cc, 10 cc and 20 cc available Sodium Sulphate—Several hundred tons per annum Sulphaguandine Tablets—Large resources Sera and Vaccines—Very large resources Catgut—Up to 200,000 tubes per month Ishihara, Colour-Vision Test—A reprint available Dental Alloy—5,000-10,000 ounces. Copper Amalgam—5,000 packages per annum Plaster of Paris (Laboratory type)—Quantities unlimited Plaster of Paris (Impression type)—Quantities unlimited Syringes, All Metal, Anaesthetic, Raison Pattern—1,000 syringes Production could be increased if necessary Trimmers, Dental Plate, Carborundum (Substitutes for vulcanite burs) Made as required Many other small items could be made available

*Items available from South Africa* Aether Anaestheticus B P, Alcohol Rectified Spirit B.P., Apparatus, oxygen, cylinder Key lever for

*Items available from New Zealand* Tinctura Stramonii B P

*Items available from Palestine* Soda Bromidum B P Artificial Teeth Dental burs (Tungsten Steel) Available from Southern Rhodesia Dental Alloy

shipment. This information helped DMS in making suitable adjustments at the time of provisioning. The lists of items that were in short supply in India were forwarded by DMS to the medical adviser in the United Kingdom so that he could give special attention in expediting supplies for those items.

### PROVISIONING

The provisioning included fixation of scales of reserves and store margin,<sup>8</sup> calculation of a long term programme of future requirements including reserves and store margins, maintenance requirements at war wastage rates and placing of firm demands on procurement authorities. Until October 1940, there was no proper system of provisioning. Sporadic demands were placed on DGIMS for one or two units at a time. This resulted in small supplementary indents being placed on DGISD for imported medical stores. To improve this situation DGIMS first obtained in October 1940, a consolidated list of units which could be foreseen. He was thus able to submit indents in bulk to the United Kingdom and to concentrate upon provision for these units only. The Medical Directorate forwarded demands for initial equipment for various medical units referring to respective scales. The Medical Directorate also prepared a list 'U' of expendable stores representing the maintenance requirements of all field medical units and regimental units in one division plus base units for one month. A list 'UB' was also prepared for the requirements of non-expendable stores for one divisional group for a period of six months.

DMS took over the responsibility of the provisioning of medical stores from DGIMS about the middle of 1941. A separate sub section was formed in the Medical Directorate (DMS2) whose main function was to work out the estimates of requirements, demands for which, when checked and approved by the Military Finance Department, were placed on the procuring authorities. These estimates had to be prepared well in advance of the date of their requirement. When the demands had been made it was the responsibility of this section to watch the progress of receipts and to accelerate, reduce or cancel outstanding items on the basis of stock position and actual consumption. Estimating, however, was a difficult process depending on various factors which could not always be accurately determined. Actual consumption, precise knowledge of new introductions or advances in medical science, the theatre of operations and human or individual factors were the basic elements which required serious consideration before any estimates could be prepared. When the first estimates were prepared there was little knowledge available of actual consumption. This led to under estimating of some items and over-

<sup>8</sup> A store margin was not a reserve but was intended to cover error in estimating the fluctuations in supply and demand. In the case of imported stores a six months store margin was considered necessary e.g. if the initial issue of item X was 1,000 and its life was six months then the store margin for six months was calculated as 1,000.

- (iv) Where supplies were insufficient, to request India Office to arrange procurement of deficiencies from the United States of America. Immediate remedy being either a substantial release of stores from the United Kingdom or early shipments from the United States of America.
- (v) Reserve units asked for by the DMS to be sanctioned readily in order that indents for their initial requirements could be placed as early as possible.

The whole question had to be placed before the War Resources Committee on 2 November 1943. This led to the investigation of the problem by the Bedaux Committee. This organisation recommended that the Supply Department should prepare a conservative estimate of 'dues-in', as on 30 November 1943. Even up to the end of 1943, however, the supply position of imported medical stores was not adequate. The procurement procedure was therefore altered. DMS could now order direct from the United Kingdom. The Supply Department continued to be responsible for the procurement of indigenous medical stores and received demands for them from all indentors including the DMS.

A small technical committee was also set up to classify all medical stores into the following four categories :—

- (i) stores not manufactured at all in India ,
- (ii) stores which could be manufactured in India but which it was better to import as finished articles because 50 per cent. or more of the materials had to be imported ;
- (iii) stores which could be manufactured in India, but which required imported raw materials up to 50 per cent. ;
- (iv) stores manufactured in India wholly from Indian raw materials.

All demands for (i) and (ii) were to be placed on DMS who ordered these from abroad and for (iii) and (iv) on the Supply Department. The Supply Department in turn was to place on DMS demands for imported raw materials necessary to manufacture (iii).

The Secretary of State for India had also agreed to have stores for DMS and DGIMS packed separately. The primary object of seeking the acceptance of the principle of separate packing was to discontinue receipt of bulk stores in India, which involved breaking up packing cases before delivery to the ultimate consignee and thus leading to pilferages, breakages and waste of time and material. After discussion, instructions on the revised procedure for ordering imported medical stores were issued by the Supply Department to all concerned.

The medical adviser to the Secretary of State for India watched the interests of DMS in every possible way. Before finally forwarding the indents to DGISD, he explored the possibilities of obtaining supplies through the War Office and the Ministry of Supply. To keep DMS informed of the supply position of various items a quarterly 'shipping statement' was furnished to DMS showing the items and quantities that had actually been shipped and those which were under

months there was likely to be an increase or a decrease in any particular disease. The estimates were also scrutinised by the staff officers of DMS, and then subjected to a further scrutiny by the Military Finance Department. After the financial sanction had been obtained, firm demands were placed on the following procuring authorities —

- (i) For indigenous items on the Department of Industries and Supplies, India
- (ii) For imported items direct on the Secretary of State for India, London, who procured them through the following organisations of the United Kingdom —
  - (a) DGISD
  - (b) Ministry of Supply
  - (c) War Office
- (iii) For imported items obtainable on lease/lend or otherwise from the United States of America, demands were initially placed on the Industries and Supplies Department, India, which diverted them to the India Supply Mission, Washington<sup>10</sup>

The work of the provisioning section did not end here. It had to keep a constant watch on both consumption and receipts, carry out periodic (three monthly) provision reviews of all items in the PVMS, cancel demands where stores had been over ordered and increase the demands where these had been under ordered.

It may be observed here that the time taken in the fulfilment of firm demands was approximately six to nine months in the case of indigenous items (in some cases it took anything up to two years). As regards the imported items the time lag was approximately twelve to eighteen months.

Apart from the responsibility for the provisioning of medical stores for the Army including the Veterinary Corps, DMS was responsible for the provision of medical supplies to the Naval and Air forces as well as to the forces of Indian States, United States, operating in India (supply was out of the lease/lend), China and Africa.<sup>11</sup>

<sup>10</sup> Up to 1943 all demands were placed on the Industries and Supplies Department including imported items.

Supply Department obtained stocks from CPO.

The open tender system was abolished for urgent operational demands and such items were procured irrespective of the cost in the shortest possible time in India as well as from the United Kingdom.

<sup>11</sup> Naval and Air Forces—

Medical supplies to the Naval and Air Forces were comparatively small. The estimated annual requirements of medical stores for the RIN were furnished well in advance by Naval Headquarters to DMS. While the provision of medical stores to the RIN was the responsibility of India, the Royal Navy was dependent on the United Kingdom. Only *ad hoc* issues were made to the Royal Navy in case of immediate need when the ships of the RN touched any of the Indian ports. Responsibility for the provision of medical stores to the IAF as also to the RAF operating in India or SEAC devolved on India.

Indian States Forces—

At first DMS was responsible for the supply of medical stores and equipment to the Indian States Forces only when they were serving outside their own states in specific roles with the Indian Army. But as the war progressed DMS agreed to supply medical stores on payment to the States Forces even when these were stationed within their own states, subject

estimating of others. This was mainly due to the introduction of many new items whose consumption could only be guessed in the initial stages. Moreover, the human factor or the requirements of the individual fighting soldier could not be exactly gauged in respect of the consumption of drugs. The constantly changing General Staff target and area of operations made it impossible to forecast the strength and movement of the armed forces, which were often altered without any warning. Nevertheless, a system was gradually evolved and a technique was developed which facilitated adequate provisioning.

Provisioning directives were issued by the General Staff from time to time. These were based on the following factors :—

- (i) Initial requirements for building new units or replacing those which had been lost by hostile action.
- (ii) Maintenance requirements for all units already functioning.
- (iii) Store margin to cover fluctuations in the maintenance requirements.
- (iv) Mobilisation reserves based on war wastage figures
- (v) Special reserve for selected items which took a considerable time (more than eighteen months) to manufacture.
- (vi) Initial and maintenance requirements of newly introduced items.
- (vii) Special items such as anti-malarial drugs where the provisioning was based entirely on the advice of the consultants and advisers.

The working out of the estimates for initial requirements was a simple arithmetical calculation and the work was made relatively easy by use of the 'Hollerith' machine.<sup>9</sup> The requirements for store margin and war reserves were also worked out in the same manner. Special reserves were calculated for a longer period in the case of certain selected important apparatus and appliances.

The calculation of maintenance requirements was somewhat complicated. DMS had to know the monthly maintenance figure for each item, and for this purpose AMSs had to send monthly returns to the Hollerith section giving receipts and issues of each item stocked. For this data the Hollerith section worked out the monthly maintenance figures of each item. The total maintenance requirements were then worked out by multiplying these figures by the period for which provisioning was to be made. The final figures, as received from the Hollerith section, were then subjected to close scrutiny by the provisioning section as well as by the consultants and advisers. The final estimates, therefore, were not based only on mechanical accounting but on a consideration of the professional aspects also. These estimates were reduced or increased in accordance with the advice of the consultants who knew best whether in the succeeding

<sup>9</sup>It will be interesting to note here that before installing Hollerith machine forty clerks were employed on this work alone and even then the final calculations were not always correct

by the end of 1944, the covered accommodation occupied by the medical stores was over 1,300,000 square feet

### DISTRIBUTION

The policy concerning control and distribution of medical supplies was directed by DMS (DMS2) and the executive control and distribution were vested in the AMSs. The distribution would have been a simple affair if there had been an abundance of stocks. There would have been no need for frequent policy directives if there had been no shortages or delays in the receipt of stores. To avoid shortages provisioning must be correct and timely action must be taken to replenish stocks. Distribution was entirely dependent on provisioning. In order that DMS could organise the distribution of medical supplies equitably, he had to be in possession of the following data —

- (i) stocks in the AMSs ,
- (ii) stocks ordered ,
- (iii) stocks due to be received in the AMSs ,
- (iv) items in short supply ,
- (v) items on ' blocked ' list (these were newly introduced items) ,
- (vi) list of new field medical units to be raised and for which initial equipment was required ,
- (vii) initial requirements of regimental medical equipment

The policy of proper distribution was first formulated by DMS in July 1943. The distribution was based on the consolidated all-India stock position. The types of indents dealt with by the AMSs were (a) maintenance, (b) initial, (c) deficiency, (d) controlled items, and (e) specialist equipment.

The general principles governing distribution were —

- (i) responsibility of distribution rested with the officers commanding AMSs ,
- (ii) no definite percentage was allocated for stores since the distribution of individual items was dependent upon stocks already held at the various stores ,
- (iii) after the examination of the stock position the distribution was to be calculated in such a manner as to maintain stocks at the required level at the main store holding units, mainly AMSs, Lahore, Lucknow, Bombay, Karachi and Calcutta

Certain items were centered at the stores<sup>12</sup> indicated below —  
(commodity stores)

- (i) Dental instruments, appliances and materials, AMS, Bombay
- (ii) Microscopes, AMS, Lahore
- (iii) Anti Malarial Equipment, AMS, Lucknow

<sup>12</sup> See PVMS

Accurate provisioning depended upon the total stock position of each item in the DMS's store holding units ; and ' dues-in ' statements from the procuring authorities. It was lack of these two very important factors which led the DMS to provision, in the early stages of the war, mainly on ' guess figures '. DMS naturally played for safety and in a larger number of cases over-ordered his requirements. The biggest demand for both indigenous and imported items was placed in 1942-43. These demands began to materialise only at the end of 1944, and early in 1945. The DMS had covered his requirements of indigenous items up to 1946, and imported items up to 1947. The war, however, ended in August 1945, and in consequence thousands of tons of medical stores became suddenly surplus to the requirements.

#### STORAGE ACCOMMODATION

DMS started his stores organisation with a covered accommodation of 250,000 square feet. This gradually expanded and ultimately,

to the availability of ' short supply ' items and those which were on ' controlled ' or ' blocked ' lists

##### *United States Forces located in India—*

Medical supplies were made available to these forces under ' Blanket sanctions ' on reciprocal lease/lend. The stores were supplied against forward estimates given by Headquarters United States Forces Service of Supply.

##### *Chinese Forces in India—*

Issues of medical stores were made where surplus stocks were held and when they would not affect the normal maintenance requirements of Indian and British units. Demands for issue of stores to Chinese forces were made by Headquarters United States Forces Service of Supply on behalf of the Chinese. Issues to Chinese forces were only made against GHQ Issue Orders. All such demands, were endorsed ' British lease/lend to China '. All urgent demands, however, were met by the local depots without waiting for GHQ sanction. Approximately 2,000 tons of medical stores from India were issued to Chinese forces.

##### *East and West African Divisions—*

Those divisions which, when they arrived in India, were deficient of certain items of initial equipment, had their demands met from India in order to bring them up to scale.

##### *Aid to Civil Defence—*

For the ARP and civil defence work in India, medical stores were also supplied from military sources to supplement those provided by Provincial Governments and philanthropic bodies.

##### *Civil Affairs Services—*

Medical requirements of the civil population of Burma were accepted as an operational commitment.

##### *ALFSEA—*

Nearly 10,000 tons of medical stores were supplied to ALFSEA for the various theatres—Andamans, Nicobars, Singapore, Batavia, Sourabaya, Bangkok, Saigon, Hongkong, Japan, Borneo, Penang, Rangoon under specially named schemes, viz, *Popcorn, Shackle, Pouter, Spaghetti, Bibber, Masterdom, Armour, Ribbon*, etc. The stores consisted of both initial and maintenance items.

##### *Persia and Iraq Command—*

India was to a great extent meeting the medical supplies to PAIC up to August 1945, after which Middle East took over this responsibility.

##### *Supplies to Ceylon Command—*

Supplies of medical stores were made through No. 11 Base Depot of Medical Stores which functioned in Ceylon from 1942 to 1946. Medical stores were despatched to Cocos Islands, Addu Atoll, Islands Gan and Willinghi and the naval hospital at Dugatawala. The Dutch displaced personnel also got their medical supplies from this source. During 1945, large quantities of medical stores were supplied by No. 11 Base Depot Medical Stores to Force 136 as miscellaneous consignments and as *Mastiff* sets dropped in special air-drop containers mostly in Malaya.

allotments were made to the Armies/Commands based on their monthly estimates. The Armies/Commands then distributed the items in accordance with the requirements of individual medical units.

*Commodity Items* Indents were placed on stores holding particular items.

*Blocked Items* These were items newly introduced into the PVMS and issues were made only on the authority of GHQ when the stocks materialised.

#### 'HINOL' SYSTEM OF DISTRIBUTION

This system was evolved for equitable distribution of medical stores within the various AMSs. The word 'Hinol' was evolved to show the level of stocks, namely, 'High', 'Normal', 'Low' and 'Critical'. In order to simplify the preparation of stock level reports, a printed form was prepared in which all non commodity items were printed, indicating against each item, the symbol of the stock level being indicated, e.g., H N L or C. Stores were required to indicate on these reports the level of the stock held compared to the scales. This was to be done by 'ringing' the relevant symbols. This could be further simplified by maintaining a continuous record of stock levels by a system of coloured signals attached to their stock account cards. These stock level reports were forwarded to the Army Medical Import Depot on the first day of each month, with copies to GHQ, along with the assorted Hollerith stock reports.

#### DISPOSAL CELL

The Army Medical Import Depot, Bombay became the 'disposal cell'. Each AMS intimated to the disposal cell all fresh receipts of indigenous stores. Being the import depot it was already in possession of the fresh receipts of imported stores. The AMSs reported to the Import Depot their stock level and the disposal cell after perusing the stock level in each AMS distributed the fresh receipts (imported and indigenous) to the various AMSs in order to bring up their stock level to the required scale.

Previous to the 'Hinol System' the AMSs were free to place orders on other stores for inter store transfers where one store had a higher stock than the other. It was found from experience, however, that the AMSs transferred or demanded stores without first ascertaining the availability of stocks. The result of this was complete confusion and delay in the compliance of indents.

#### AIR TRANSPORT OF MEDICAL STORES

The first known instance of the use of aircraft to supply the Army was at the siege of Kut in 1916. Two bags of *atta* were suspended from each wing of an aircraft and were released at the opportune moment by the observer cutting the cord. During World



- (iv) Items marked for Veterinary use, Reserve Base Depot (Veterinary), Lahore.
- (v) X-ray apparatus, appliances, films and chemicals, AMS, Poona.
- (vi) Not included in the PVMS' items and Section 30, AMS, Delhi

It was impressed upon the officers commanding AMSs that the policy as directed by GHQ had to change very often and the best person to know what to do was the officer commanding the depot who received the demands and complaints of the consumers.

#### CHAIN OF DISTRIBUTION

The chain of supply was as follows :—

- (i) GHQ was responsible for an equitable distribution among the various AMSs and base medical stores.
- (ii) AMSs were responsible for supply to —
  - (a) base medical stores ;
  - (b) base depot medical stores ,
  - (c) all static medical units located within the area of supply ;
  - (d) building up initial equipment for the new units being raised.
- (iii) Base medical stores were responsible for supply to the medical holding units in the field.
- (iv) Base depot medical stores were responsible for supplying all depot medical stores in the forward areas and base general hospitals located within their areas of supply.
- (v) Depot medical stores were responsible for supplying to the field medical units located in the area of supply.

#### ISSUE SYSTEM

Issue of stores was made on the following system :—

*Maintenance Indents* : These were placed every quarter on the dependent store holding units and consisted of items of which there were adequate stocks. These indents were not referred to GHQ. At first the procedure was that the units had to submit their indents through their ADsMS. Later, units were instructed to place the indents direct on AMSs. The officers commanding AMSs were given the authority to scrutinise and to reduce the demands if they considered this necessary.

*Initial Indents* . Issue orders for initial requirements according to the Medical Mobilisation Equipment (MME) scales were prepared by the Medical Directorate and forwarded to the AMSs for compliance. Units were not required to place any indents for initial equipment.

*Controlled Items* : GHQ prepared from time to time lists of items in short supply and such items were rationed out to the units on a percentage basis according to the priority of requirements. Bulk

certain items by air than by sea. The use of certain vaccines and drugs could be spread over a longer period before they became time expired when the period of transportation was reduced.

It was obviously uneconomical to allocate individual aircraft for the carriage of medical stores. The Medical Directorate therefore asked for air lifts on the Movements (Air) Directorate, QMG's Branch, stating the consignee, the weight of the stores, and the reasons for urgency of despatch. The Movements Directorate examined the various applications received and allocated serial numbers and priorities accordingly. This information was sent by telegram to the Medical Adviser to the Secretary of State for India in London.

The procedure as outlined above was inevitably laborious, and it was agreed that 200 pounds of urgent medical stores could be despatched monthly on a permanent priority basis, and for which serial numbers had been pre-allotted. This amount was later increased to 500 pounds, which was normally split up into four weekly consignments of 125 pounds each.

Karachi served as the main airport for the reception of stores from outside sources. The Embarkation Commandant undertook to clear them to the AMS, Lahore, from where they were despatched by road, rail or air to the other AMSs or direct to the medical units. The road and railway transport services of India were not the ideal means of distributing perishable medical stores, which deteriorated considerably as the result of delays, rough handling and exposure to extreme temperatures. There was thus considerable scope within India for distributing medical stores by air in the interest of efficiency.

Much consideration was given to selecting equipment and training personnel for airborne medical units. The majority was required to parachute from the aircraft, others were landed in gliders. Initial equipment had to be light in weight and capacity packed. The largest problem was that of packing the medical stores into containers, which involved the greatest care in selecting items for suitable container loads. In this connection it must be remembered that the breakage of some small component of a delicate instrument might render the whole instrument valueless, the contents of a single broken phial might contaminate the whole container. Therefore, considerable emphasis had to be laid on the packing of medical stores in special airborne containers and packs.

The following blocks were designed to facilitate the supply of medical and associated ordnance and RIASC stores in the operational areas —

- (1) *Battalion Group (Block 'A')* This was intended to cover the requirements of a battalion group without a surgical team for twenty-four hours in a separate operation, or an isolated battalion in a larger operation. These blocks could be used in a divisional operation to supplement blocks 'B', 'C' and 'D'.

War I, the Germans tried to make use of Zeppelins for dropping supplies to their forces in East Africa, but these turned back without accomplishing their mission. In the interval between the two World Wars, the potentialities of air supply were demonstrated when food and medical supplies were dropped to stranded explorers, and to airmen who had been forced to land in isolated parts of the world. In addition, there were a number of occasions when troops engaged in operations on the north-west frontier of India were similarly supplied.

In Burma and SEAC, airborne supplies were chiefly used to maintain infantry forces in cases of emergency, or where supply by land was impracticable owing to the absence of suitable tracks. During the later stages of the evacuation of Burma, a small air despatch unit with improvised equipment was hurriedly formed to feed and maintain refugees travelling from Myitkina towards Assam, as well as the irregular forces which were delaying the Japanese in the Chindwin valley. Over a period of three months about 3,000 tons of stores of all types were supplied by air, mainly by free-dropping. When in 1944, the land communications of a large element of the Fourteenth Army in Arakan and Imphal were cut, all available aircraft were used to meet the emergency, and in the month of June alone nearly 14,000 tons of stores including medical were flown to the troops isolated in Imphal.

Besides the operational aspects of maintenance by air, increasing use was made of freight carrying aircraft to transport medical stores into India from outside and to distribute these within India, processes which came to be known respectively as the outer and inner zones of supply. As the air lift available was barely sufficient to transport even an infinitesimal percentage of India's requirements, its use was confined to the carriage of urgent and specialised stores of the following categories .—

- (i) items required to save life, like iron lungs ,
- (ii) material for pathological research ;
- (iii) commodities such as penicillin, vaccines and sera ,
- (iv) items in short supply.

As most of the medical stores were of light weight in relation to their volume, these were suitable for air transportation. Speed in the transportation of commodities in short supply was frequently of paramount importance. By reducing the time lag between the placing of an indent and its materialisation, troops got the benefit of some vital drug or medicine which otherwise they would have gone without. For example, when the use of mepacrine was extended to include suppressive treatment, existing stocks in the country were totally inadequate to meet the increased demand. Aircraft delivered approximately two hundred million tablets, equivalent to a three months supply for all the armed forces at very short notice

Despite the apparent greater expense incurred in air transport as opposed to sea transport, it was still more economical to despatch

having regard to the type of labour and materials then available. Thirteen IORs of the IEME were also sent to Roehampton for training in the manufacture of artificial limbs. In the beginning the Artificial Limb Centre was still dependent upon a commercial firm in Sialkot for the supply of half finished wooden limbs. The IEME Workshop in Rawalpindi, in the meantime, had been experimenting in the manufacture of metal parts of the wooden limbs. By the end of 1944, the centre itself took on the manufacture and fitting of artificial limbs except for the metal parts which were manufactured in the IEME Workshop, Rawalpindi. The most suitable timber for the manufacture of artificial limbs was willow, obtainable from Kashmir. But owing to the unsatisfactory quality of the wood supplied and the delay in procuring a suitable type through the Department of Supply and Industries, willow was obtained from the United Kingdom. The supply of leather was also arranged from there.

The greatest difficulty was in respect of the supply of upper limbs, which were made of metal. Two types of upper limbs were being manufactured in the United Kingdom—(a) the 'dress arm' with no mechanical gadgets, (b) the 'working arm' with appropriate gadgets in accordance with the vocation of the amputee. The IEME Workshops in Rawalpindi and Poona experimented on these appliances, and some of their products were quite satisfactory.

It was suggested at one time that wooden limbs were heavy and that arrangements should be made for the manufacture and supply of metal limbs. It was contended that although the metal limb was slightly lighter and better shaped it would not be a suitable limb for India due to the climatic conditions. Furthermore a metal limb requires constant supervision and care on the part of the amputee and this was not to be expected of the type of amputee in India.

In August 1945, two experts in the production of artificial limbs visited the Artificial Limb Centre, Kirkee. Their recommendations were embodied in a report which gave some very helpful suggestions. These were implemented as far as was possible.

Three medical officers of the IAMC were sent to the United Kingdom for training. Two of these medical officers attended a short course and the third one remained for about a year to learn the work of manufacturing artificial limbs at Hangers Limited. On completion of his training he was posted to the centre as second in command. This was the position of the centre when the war ended. It was realised that the arrangements to stabilise this centre were not yet complete.<sup>14</sup>

<sup>14</sup> *Types of Limbs supplied by the Artificial Limbs Centre, Kirkee*

Above knee limb   Above knee peg leg   Below knee limb   Below knee peg leg  
Above elbow working arm   Above elbow dress arm   Below elbow working arm   Below  
elbow dress arm   Through knee amputations—limb and peg leg   Through hip amputations  
Tilting table peg leg   Through shoulder amputations   Dress arm   Symes amputations  
Limb and foot   Surgical boots

- (ii) *Brigade Group (Block 'B')* : This was intended to maintain a field ambulance and the battalion RAPs for twenty-four hours. It was approximately four times the size of Block 'A'.
- (iii) *Surgical Centre (Block 'C')* : This consisted of twenty-four hours maintenance for a surgical centre consisting of two teams, and was supplementary to Blocks 'A' and 'B'.
- (iv) *Divisional Reserve (Block 'D')* : The divisional reserve block was intended for delivery to the most central field ambulance to form a reserve, and also to supplement the field ambulance which served the bulk of divisional troops. The stores were sufficient to enable a rapid build up of reserves in the early stages of an operation.

#### SUPPLY OF SURGICAL INSTRUMENTS AND APPLIANCES

Various complaints were received regarding the supply and quality of surgical instruments. The output in the United Kingdom was limited and the demands from the Commonwealth countries were enormous. The surgical instrument was not a commodity which could go into mass production at short notice. Certain types of surgical instruments, particularly ear, nose, throat and eye instruments, were mainly hand forged. Large quantities of medical stores and equipment including surgical instruments worth millions of pounds fell into the hands of the Germans in France. Subsequently the demands were extremely heavy and the forces in the west received priority over the forces in SEAC and India. DMS at that time was forced to accept whatever was available in the local market and this was not of the very best quality. The solution lay in establishing the manufacture of surgical instruments in India under proper expert supervision.<sup>13</sup>

In 1945, the DMS was informed that the War Office reserves were available for India owing to the cessation of hostilities in Europe and also that there was surplus capacity for the manufacture of surgical instruments in the United Kingdom. Action was taken to condemn all sub-standard instruments used by medical units and to replace them by those imported from abroad.

#### SUPPLY OF ARTIFICIAL LIMBS

The pre-1939 position was that the service amputees were dependent on certain firms in Sialkot and Bombay, as the number of limbs to be fitted was limited. In the early period of the war an attempt at fitting, and to some extent manufacturing, these limbs under military supervision was started at the military hospital, Sialkot. A contract for the supply of limbs was given to a local contractor. This system of supply continued till early 1944, but was not found to be satisfactory. It was, therefore, decided to start an artificial limb centre at Kirkee under the command of Lieut.-Colonel A. M. Chaudhuri IMS/IAMC, who organised the manufacture of artificial limbs under most difficult conditions,

<sup>13</sup> See page 342

(iii) Photo Rontgen Unit (Mass Miniature Radiography set) Victor K X 14 complete with generator for the examination of Gurkha recruits

(iv) High powered X-ray sets for military hospitals with T B Wings

The following X-ray sets were supplied to military hospitals and field units in India during World War II

Name	Maker	Country of origin	Output
1	2	3	4
MX I	Watson's	United Kingdom	60 KV 10 ma
MX II	Watson's	United Kingdom	85 KV 15 ma
F 3 35	Victor	United States of America	70 KV 15 ma
Centralia	Phillips'	Holland	65 KV 5 ma
MX III	Watson's	United Kingdom	90 KV 50 ma
D R F	Victor	United States of America	75 KV 15 ma
D 3 38	Victor	United States of America	85 KV 20 ma
			80 KV 25 ma
DR 3 38	Victor	United States of America	85 KV 20 ma
			80 KV 25 ma
Demountable	Victor	United States of America	85 KV 15 ma
			70 KV 20 ma
Mobilis	Watson's	United Kingdom	40 60 amps
			80 KV
Mobile	Solus	United Kingdom	90 KV 30 ma
Mobile D	Phillips	Holland	90 KV 30 ma
K X 12 30	Victor	United States of America	85 KV 200 ma
Siemen's Tuto	Siemen's	Germany (now made in	85 KV 400 ma
helipphos	British Rad	United Kingdom)	
Field Service	Pickering X ray	United States of America	85 KV 30 ma
set MDA II	Corporation		85 KV 15 ma
			(with generator)
PH 105	Phillips	Holland	100 ma at 85 KV
K X 10	Victor	United States of America	80 140 KV 10 ma
S F 110	Watson's	United Kingdom	100 KV 10 ma
Photo Rontgen	Victor	United States of America	
Unit			
K X 14			

#### PROVISION AND DISTRIBUTION OF X RAY FILMS AND CHEMICALS

Prior to the end of 1943, all X-ray films and chemicals were obtained under contract from Messrs Kodak Limited and Messrs Ilford Selo (India) Limited, on an as required basis. The firms were responsible for the storage and distribution of these stores. Indents received from the hospitals were scrutinised at GHQ and the firms despatched supplies direct to the hospitals concerned.

## X-RAY AND ELECTRO-MEDICAL EQUIPMENT

Up to April 1930, all X-ray stores were supplied to military hospitals by the X-ray Institute, Dehra Dun ; these stores were obtained from DGISD. This system gave the various X-ray specialists and others a free hand in the matter of ordering equipment, with the result that heterogeneous types of X-ray sets came into use in the military hospitals. The X-ray Institute closed down in 1930 and DMS took over the responsibility of supplying X-ray stores.

Despite the financial restrictions which considerably retarded the provision of new equipment, by 1937, most of the X-ray departments were fitted with the new apparatus and standard accessories, and by 1941, almost all the old type of X-ray equipment had been replaced by the modern apparatus and accessories.

By the end of 1942, when an increased number of casualties was being received from overseas theatres, it was seriously felt that the military X-ray departments in India were quite inadequate to cope with the work. Early in 1943, it was decided that one radiographic unit consisting of one static X-ray set and one portable set with associate equipment should be provided to field and base general hospitals, all garrison hospitals over 350 beds, 25 per cent. of garrison hospitals under 350 beds, (one static X-ray set with associate equipment only) to hospital ships and a mobile X-ray unit per casualty clearing station.

As a result of the above decision, orders for the X-ray apparatus and accessories were immediately placed on the United States of America and the United Kingdom, but on account of the shortage of supply in both these countries progress was very slow in the beginning. The Indian market could meet only 15 to 20 per cent. of the total requirements. Consequently the DDE&S, and the Consultant Radiologist at GHQ visited the United States of America and the United Kingdom in order to expedite supplies. As a result of their determined efforts nearly 200 X-ray sets of different makes were imported into India within a period of six to nine months. In spite of all the difficulties experienced in obtaining the X-ray equipment, the idea of its standardisation was never given up. Nearly 80 per cent. of military hospitals and field medical units were supplied with modern and uniform X-ray sets.

The policy regarding the supply of X-ray equipment to military hospitals and field units was further revised in 1944, when it was decided to provide X-ray equipment for all the hospitals with a bed strength over fifty. Sanction was also obtained for the provision of the undermentioned special X-ray sets :—

- (i) Victor K X 12-30 X-ray Set 85 KV 200 ma; one for each base general hospitals.
- (ii) Victor K X 10 Superficial X-ray Therapy Sets for the four Superficial Therapy Centres.

correction of measuring instruments Four X-ray technicians were also appointed one in each Army/Command, to look after the day-to-day maintenance of the X-ray equipment of medical units The Technical Engineer Officer (Radiology) visited medical units and advised on all technical matters As a result of these measures the efficiency of X-ray departments improved considerably

#### SPECTACLES

During the pre-war years the supply of spectacles at public expense was confined to BORs The supply of spectacles was obtained through 'running' contracts with civilian opticians During World War II this concession was extended to IORs and NCs(E), under certain conditions

It was found, however, that apart from the exorbitant prices charged by the civilian firms there was considerable delay in the supply of spectacles, mainly due to the difficulty of obtaining lenses from abroad The Army, therefore, established its own spectacle centres and obtained the lenses required through official channels The concession of free supply of spectacles to Indian Army personnel during the war period was in order to enable all available manpower to be used to the maximum extent This concession was accepted later as a permanent post-war measure The centre in Poona was also entrusted with the supply of artificial eyes

#### PEST CONTROL

Due to limited accommodation in AMSs large stocks of stores had to be stacked in the open In spite of precautions, the climatic conditions prevailing in the country were conducive to the deterioration of stores In 1944, therefore, an 'Inter Services Stores Preservation Organisation' was formed to function as an advisory body, to give technical advice and to train personnel with a view to checking loss of service stores through deterioration of a biological nature (i.e. pest control) Opportunity was also taken to train suitable BORs from the AMSs It thus became possible to protect, to a large extent, items like wool, cotton, bandages, packing cases, orthopaedic equipments, etc., against different kinds of pests Officials of the 'Inter Services Stores Preservation Organisation' also inspected the medical stores and gave the necessary advice After the pest control operations were undertaken, the incidence of loss in the medical stores installations due to biological damage was considerably reduced

#### COLD STORAGE

DMS was faced with the problem of making suitable arrangements for cold storage of huge stocks of perishable drugs and stores



This worked very successfully without the loss of a single X-ray film on account of deterioration or time expiry. In 1944, X-ray films and chemicals were also brought into line with the other medical stores and consolidated demands for them were placed on the United Kingdom.

#### ELECTRO-MEDICAL EQUIPMENT FOR MAJOR AND MINOR REHABILITATION CENTRES

Prior to 1944, some items of electro-medical equipment were authorised for the military hospitals with orthopaedic wings. As the base general hospitals were called upon to treat casualties which required the special use of electro-medical apparatus, such equipment was authorised for each of these hospitals, forming major rehabilitation centres. Similarly minor rehabilitation centres were formed in field, general and garrison hospitals. The following items of electro-medical equipment were supplied to the rehabilitation centres :—

- (i) Apparatus, Galvanic, Portable.
- (ii) Bath Radiant Heat
- (iii) Apparatus, Faradic
- (iv) Apparatus, Diathermy
- (v) Bath, Schnee, four cells, with stands and electrodes.
- (vi) A complete set of different electrodes.
- (vii) Lamp, Infra Red Ray.
- (viii) Lamp, Ultra' Violet complete.
- (ix) Table, treatment, electro-therapeutic.

#### FORMATION OF X-RAY STORES DEPOT AND REPAIR WORKSHOP AMS, POONA

Prior to 1941, there was no special depot for the X-ray stores. Most of the reserves of X-ray equipment were stored at the Military Hospital, Poona. This arrangement was not very satisfactory. Difficulty was also experienced in the proper supervision and repair of X-ray equipment and appliances. X-ray sets were installed and repaired by private firms, and these would sometimes refuse to send their technicians to military hospitals in the North Western Frontier and other field areas. Consequently a special depot for the storing and repairing of X-ray and electro-medical equipment was opened at Poona towards the end of 1941. An X-ray engineer from Messrs. Philips Electrical Company Limited, Calcutta, was conscripted and employed in AMS, Poona. This officer was designated 'Technical Engineer Officer (Radiology)' in the rank of major and was directly under the control of the consultant radiologist at GHQ. His advice was sought in regard to the repair of damaged X-ray equipment, the disposal and reconditioning of equipment, the feasibility of manufacture of apparatus, the type of apparatus passed as suitable for certain work, and, most important of all, the calibration and

## CONCLUSIONS

No two wars follow the same pattern, yet the mode of conducting the first and the organisation developed for the purpose have a bearing on the conduct of the second. World War II by reason of its magnitude will have important lessons for the future. Similarly the story of the evolution of the military stores organisation and the experience acquired in attaining a certain standard of efficiency will help the future administrators of medical stores.

The premier function of a stores organisation in war or in peace is to deliver medical stores when and where they are most needed in an economical way and in the most expeditious manner. The function of delivering medical supplies effectively was achieved only by trial and error and after a tremendous waste of effort and money. The inadequacy of the earlier organisation to meet the requirements of a major war emphasised the importance of a separate stores organisation wholly under military control, and the success achieved, however incomplete, has been instrumental in the perpetuation of such an establishment.

The urgency of war had compelled DMS to formulate plans on very broad lines or to institute stop gap measures to meet pressing needs. AMSs were housed in temporary and badly constructed buildings situated in many cases miles away from the railway lines or sidings, modern factory labour saving devices such as lifts, stacking machines, gravity runways, etc., were virtually non-existent. Intra and inter depot communications were out of date, cool and cold storage accommodation was inadequate. Stock checking and control were ineffective, so that a regular turnover could not be achieved and the writing off of losses was frequent. The packing of stores was of a low standard, mainly due to the inadequate and unsuitable packing material employed and to the inexperience of the staff. Since the ministerial staff engaged was usually inexperienced the records were not always accurate, packing was faulty and consignments were at times wrongly addressed. The staff at GHQ was also mostly inexperienced in the beginning. The staff position was made worse by frequent changes. These weaknesses in the medical stores organisation of DMS were inevitable during the infancy of an organisation which had its birth during the war. But it will be essential to plan ahead during the days of peace in order to strengthen the organisation and make it capable of meeting future demands.

*Personnel* It is an erroneous belief that stores work can be learnt in a matter of weeks or months. To train officers and other ranks in this work would involve a minimum period of three years of steady and hard work. It is, therefore, necessary that a sufficient number of officers be given stores duties to build up a reserve of trained personnel which will be available in the event of any sudden expansion. So long as medical officers are employed in the stores organisation, it is imperative that they believe that they are

## FINANCIAL POWERS OF VARIOUS AUTHORITIES

DMS and the officers commanding the stores units were vested with certain financial powers. The details of such powers are given below :—

*Financial powers of DMS and the Officers Commanding Stores/Depots*(1) *Local purchase powers* .

	Rupees	
<i>In India</i>		
DMS . . . . .	2,500	} For each transaction.
Officer Commanding AMS Class I	1,000	
Officer Commanding AMS Class II and III	400	
Officer Commanding base medical stores	400	

*Note* —Purchase in excess of the limit of Rs. 2,500 could be made by the DMS with the concurrence of the Military Finance authorities

*In United Kingdom*

DMS . . . . . £200 per month (non-accumulative).

(11) *Financial powers in respect of losses of public money.*

	Not due to theft, fraud or neglect	Due to theft, fraud or neglect
DMS . . . . .	Rupees 500	Rupees 100

*Powers to write off losses in respect of stores.*

	Loss not due to theft, fraud or neglect	Loss due to theft, fraud or neglect
	Rupees	Rupees
DMS . . . . .	2,500	500
Officer Commanding AMS Class I	200	Nil
Officer Commanding AMS Class II and III	100	Nil
Officer Commanding Army Medical Imports Depot	200	Nil
Officer Commanding Base Medical Stores	100	Nil

\* In the case of imported vaccines and sera DMS's powers were limited to Rs 500

(111) *Manufacture of special tools and equipment for expediting production, etc.*

	Rupees
DMS . . . . .	2,500
Officer Commanding AMS Class I	200
Officer Commanding Class II and III	20

(iv) *Local repairs to medical equipment*

	Rupees
Officer Commanding, AMS Class I	1,000
Officer Commanding AMS Class II	400

(v) *Experimental grant* .

In India . . . . .	7,000	} per annum
In United Kingdom . . . . .	£ 300	

*Airborne Stores* The experience regarding the air transportation of stores gained during the war may be summarised as follows —

*Standardisation of Packages* It is essential that packages should contain the maximum quantity of stores with the minimum amount of packing material. This requires a standardised system of carton-packing. It is necessary to determine the units of packing for all expendable items, individual issues should then be made in terms of these units only. Bulk stocks should also be accumulated in multiples of these units. Carton packing is the lightest form of effective packing, requiring very little additional packing material to withstand transportation.

*Training* Sufficient personnel must be trained to handle air transported and airborne medical stores. This will involve the training of medical units for duty at airports, and medical detachments for duty with rear airfield maintenance organisations. The former must be trained in the recognition and handling of carton-packed items, the latter must become conversant with the various blocks for re-supplying operational troops. Staff officers in peace should become acquainted with the various methods employed in the carriage of stores by air. In future vastly increased tonnage of medical stores transported by air may necessitate the formation of a subsection in medical stores to be responsible for clearance and distribution of such stores. Special aircraft should be designed and equipped for the carriage of delicate and valuable items, and experiments should be carried out with a view to their construction. Adjustable racks and shelves, together with cool and cold storage facilities, are some of the requirements which must be considered.

*Carton Packing* The system by which packeted cigarettes are packed and distributed by manufacturers is a convenient illustration of the value of this principle throughout the whole chain of supply. This system, coupled with proper sealing for preservation, has been adopted by the Ordnance Services with marked success and there is a large range of medical supplies to which a similar method can be applied. The obvious advantages lie in the ease with which stocks can be binned, stacked, accounted for and issued. The virtual elimination of any necessity to handle individual items before they reach the user must result in fewer breakages, less pilfering and, in certain cases, less deterioration in stores. A further advantage will accrue in the matter of the movement of stocks on mobilisation. Formerly such stocks were held ready packed in peace for immediate issue to units on mobilisation and considerable difficulty arose over stock taking, accounting and turnover. Further, there was no elasticity to provide for adjustments made necessary by changing scales in the composition of the units. The carton packing system will remove these difficulties entirely as it will permit the rapid assembly and issue of 'pre scaled blocks' from bulk holding. User packets will, of course, be based on common factors applicable to all classes of user units, both static and field. The main initial

employed in a branch of medical service which is second to none in importance and that they must devote themselves to the study of its problems. An adequate staff must be maintained at GHQ, its time being devoted to planning, investigating and experimenting on new medical equipment. Experience has proved that personnel trained over a wide range of specialities and in adequate numbers are essential for success. To this end it is necessary that the GHQ staff should keep pace with the latest developments in medical science. As regards depot personnel it was found that the civilian employees were not usually amenable to military discipline ; it will be an advantage, therefore, to militarise the depots completely.

*Accommodation and Stores Gear* : It will be advisable to have a definite plan for the establishment of static store holding units of suitable size and to have these units well staffed with experienced personnel, avoiding as far as possible the transfer of such technical personnel.

The problem of accommodation for stores should be given very special attention. Covered accommodation must be dust, rain and damp proof. It must consist of large sheds with high roofs and with as many bays as possible ; floors must be strong enough to withstand heavy trailers ; there must be sufficient light and air. The skylights must be large and wide. Rackings should be such as to be of easy access, and be built of rustless steel. These should be of the adjustable type to suit requirements. This would not only improve the appearance of the stores but would make stock checking and the issuing of stores very much easier. When building a new depot air raid precautions should receive careful consideration. Sufficient vacant space must be allowed for expansion (of the total available space only one-third should be built up and two-third should be left open). The depot should have a railway spur, mechanical lifts and cranes and should have adequate cold storage accommodation for perishable drugs. The offices should have adequate lighting and ventilation and should be provided with telephones.

*Standardisation* : Standardisation should concentrate on the following points :—

- (i) to standardise PVMS. on modern lines (in a loose-leaf arrangement) ,
- (ii) to establish a museum of medical equipment ,
- (iii) to elaborate a procedure for the control of time-expired drugs and for toxicity and to plan for the disposal of all drugs which on demobilisation come back into the stores ;
- (iv) to work out rates of consumption per 100,000 men per month, based on peace/war wastage rates ;
- (v) to evolve a system of control and check for medical units (hospitals) so as to ensure that inspection and supervision of the quality of equipment and drugs in their charge is being maintained ;
- (vi) to plan new equipment well in advance of requirements ; no new items should be included in the PVMS till the stocks actually are available for issue.

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problem will lie in determining a suitable carton unit for each item. It will then be necessary to carton pack existing depot stocks and to persuade manufacturers to pack future supplies to suit the requirements.

*Packing Material* · The losses due to bad and indifferent packing, ran into lakhs of rupees during the war period. It is, therefore, necessary that packing material should be of a quality which will withstand all types of transport. Commercial firms in the United States of America and the United Kingdom have perfected the art of packing. It will be worthwhile to send abroad a few employees from the depots to learn how medical stores of different types should be packed. There must be standardisation in packing in order to save money and to facilitate checking.

*Checking of Stores* It was found that the existing procedure for the checking of stores was most cumbersome and inaccurate. A system was evolved whereby an easy and quick method of checking ground stocks with the ledger balances could be employed. There is still room for improvement in this direction and it is dependent entirely on the suitable storage accommodation and the method of stocking and carton-packing.

*Building of Reserves of Essential Items* : The greatest difficulty encountered during the war arose from the paucity of supply of essential equipment, particularly of those items which required a period of twelve to eighteen months to manufacture, e.g., ENT instruments, eye instruments, microscopes, etc. It is imperative that in a future expansion capacity for production be maintained while plans are worked out for the laying in of reserves of equipment and stores for which manufacturing capacity cannot be readily available. It will be advisable to prepare in consultation with the General Staff a complete list of such essential items and to lay in fairly large reserves. It might appear wasteful to tie up so much capital which may never be used, but on the other hand it is a very small premium against the risk of war and it is well worth taking.

*Stores Accommodation in Hospitals* : Hospitals maintain a considerable proportion of India's holdings of medical stores and the correct storage and maintenance of these holdings is of vital importance to the economy and efficiency of the whole of the medical supply services. The importance of adequate accommodation for bulk holdings in the hospitals and of well fitted dispensaries with trained and adequate stores staff is as important in the hospitals as in the case of AMSs.

*PVMS and MME Scales*. The PVMS and MME scales must be constantly and regularly reviewed to avoid a repetition of the condition in which the medical services found themselves in 1939. Obsolete stores must be eliminated from the depots and modern replacements must be procured as they come out. Weight tables and packing must be constantly reviewed and standardised whilst special demands for air supply must always be borne in mind.

There is still much to be done in standardising the medical equipment. It will be advisable to work out weight tables and cubic capacity of all packed stores for field medical units according to their MME scales so that on mobilisation the field medical units will not be left to guess their requirements of transport for the carriage of their equipment.

*Control of Stores* It will be interesting to note here that attempts were made by MGO to take over the medical stores organisation of DMS under his own control. The plan was that India should set up only one main stores holding service which could deal with all stores peculiar to each arm of service, including the medical service. DMS contended that the medical stores should not form part of any one store holding service but should remain under his control. A similar suggestion was made at the War Office and after very close examination the proposal was dropped and the stores remained under the control of the medical services. The main reasons for dropping this proposal were —

- (i) MGO had no personnel capable of dealing with such items as dangerous drugs
- (ii) Assuming it would be essential to employ medical personnel within the MGO's organisation, they and their stores would cease to be protected by the Geneva Convention unless a certain clear cut segregation of the medical element was made



## CHAPTER XVI

# Demobilisation

Demobilisation is the process by which an armed force, raised to meet the needs of a war or emergency is reduced to the strength required for the discharge of its peace time commitments. At the end of World War I, demobilisation in India was carried out in such a manner as to denude the Army of those personnel and units which had attained a sufficient standard of training to defend the country from external aggression. This had adverse results, as India was immediately faced in turn with the third Afghan War and a general revolt of the frontier tribes.

Consequently, during World War II, while planning the transition from war to peace footing the guiding principle was the security of India at all stages and in its widest sense. Initial planning to cover all aspects of demobilisation of the Indian Army was started as early as September 1941. A small section composed of one AAG and two clerks, designated 'Demobilisation section' was formed in the AG's Branch. This section was transferred to the Defence Department in July 1942, and the work of reconstruction was also added to its duties. The section was, consequently, redesignated as the Directorate of Demobilisation and Reconstruction. The Demobilisation Directorate, with an addition of 8 officers and 41 clerks to its establishment, however, continued to work directly under the AG. The reconstruction section was later amalgamated with the Directorate of Welfare and Amenities, subsequently known as the Directorate of Resettlement under the Defence Department. The Demobilisation Directorate returned to the War Department and continued to be directly under the AG. It remained so until the middle of 1944, when a Man-Power Planning Directorate was formed embracing the Demobilisation Directorate. In December 1944, a further expansion of the Directorate took place with the formation of the Repatriation Section.<sup>1</sup>

The method and rate of demobilisation were to be determined with reference to the following main factors —

- (i) The necessity to safeguard the economic and social stability of the country.
- (ii) Adequate provision for external and internal security and the reconstruction of the post-war Army.
- (iii) The extent to which it might be necessary to retain forces in areas outside India, i.e. the formation of an interim occupation Army.
- (iv) Reasonable regard to the rights and interests of individuals subject to the demands of the preceding factors.

<sup>1</sup> Monograph *Demobilisation* published by the Combined Inter Services Historical Section (India and Pakistan) in 1948

- (v) Organisation to deal with the accounts and records of demobilised personnel <sup>2</sup>

So far as the military medical organisation was concerned, it was obvious that the rate at which demobilisation was possible must differ from the other arms of service and must, of necessity, lag behind general demobilisation to cover the period of hospitalisation necessary for the casualties <sup>3</sup>

Full details of the regulations governing release from Army service on demobilisation were published in the *Release Regulations, Indian Army and Women's Services, India*. These regulations were made operative with effect from 13 May 1945 <sup>4</sup>

There were the following three classes of release —

Class 'A' — Personnel surplus to requirements

Class 'B' — Personnel released to undertake specified employment of national importance

Class 'C' — Personnel released on compassionate grounds

Priority of release was accorded only to married women and to all those over fifty years of age. They could claim their release at any time in Class 'A'. The regulations provided for the release of all servicemen and women in their turn, in accordance with the groups in which they were placed by the combination of the two factors of age and service, as and when they became surplus to requirements.

Personnel in Classes 'B' and 'C' were releasable at any time so long as they fulfilled the conditions for release under these classes. The military authorities, however, retained the right to defer the release of any individual or category of individuals whose services were essential, but such cases were exceptional.

Individuals who did not wish to be released when their turn came could apply for deferment of their release. Originally deferment was a one-sided contract. The officer or other rank recruited during the war made a contract to postpone the date of his release, either because he wanted to become a regular soldier, or because he was willing to continue to serve for a further period of six months, a year, two years or until the end of the emergency. But there was no obligation on the part of the Army either to accept him as a regular soldier, or to keep him for the full period of his contract, because in each contract a proviso was included to the effect that he could serve only as long as his services were required.

The lack of volunteers in the British service under this scheme later caused the cancellation of the above mentioned proviso by the British Government and the Indian Army followed suit, with the result that some of those who in the later stages of demobilisation were accepted for a binding deferment, were still serving after the conclusion of the emergency.

<sup>2</sup> L/1/45/H(M)

<sup>3</sup> F/2902/1/H(M)

<sup>4</sup> F/2903/14/H(M)

The release regulations originally applied the age and service group scheme rigidly to all, but in actual practice this system was followed only in the case of British officers and other ranks of the Indian Army. Selection of IORs and NCs(E) for demobilisation was carried out in accordance with the following principles. When more personnel wished to serve than were required elimination was effected as follows. All permanent medical category 'B' and 'C' personnel were released, except those whom a commanding officer wished to keep for special reasons. All those who wished to be released were allowed to go as soon as possible. Those not suitable for retention in the regular Army, either because they were physically not up to the standard or because they did not reach the educational or technical standards required, or because their age and service made them uneconomical to the unit, were ordered to be released. Where the number who wished to continue to serve fell short of requirements, elimination was ordered by the age and service group system, only those necessary to maintain the requisite efficiency and balance in units being retained. The term 'well balanced' implied as even a distribution as possible throughout the units by age and service groups, to ensure that, in future, wastage by transfers to reserve and pension would be even and that blocks in promotion would be avoided.<sup>5</sup>

#### THE MEDICAL SERVICES

The general principles mentioned above applied also to the medical services. By 15 July 1947, 3,859 medical officers, 55 dental officers, 1,534 nurses, 226,283 VCOs, IORs and NCs(E) IAMC personnel had been released.

The priorities agreed to in the procedure for the release of medical personnel and some features specially applicable to them were as follows :—

##### (1) *Medical Officers*

- (a) Retired re-employed and superannuated officers.
- (b) Those holding liens on civil appointments under the Provincial Governments and local administrations or railways.
- (c) Regular officers recalled from the IMD(civil).
- (d) Private practitioners granted emergency commissions in the IMS, above the age of fifty, followed by those above forty. The remaining (except those granted permanent commissions) were to go in the order of juniority.<sup>6</sup>

<sup>5</sup> Monograph *Demobilisation* published by Combined Inter Services Historical Section (India and Pakistan) in 1948

<sup>6</sup> H/4/55/H(M)

*Cumulative totals of Medical and Dental Officers released, during 1946-47*

Date	Medical Officers	IADC Officers
July 1946	1,499	—
August 1946	1,781	25
September 1946	2,072	30
October 1946	2,471	36
November 1946	2,774	37
December 1946	2,991	38
January 1947	3,161	42
February 1947	3,395	42
March 1947	3,535	43
April 1947	3,626	49
May 1947	3,730	49
June 1947	3,819	49
July 1947	3,859	55

*Release Programme of General Duty Medical Officers and Specialists by Age and Service Groups*

Age and service groups	Period of release			
	General duty medical		Specialists	
	From	To	From	To
1-16	Up to 19 September 1945		Up to 24 September 1945	
17-24	Up to 9 January 1946		Up to 9 January 1946	
25-26	10 January 1946	28 February 1946	10 January 1946	28 February 1946
27-33	7 March 1946	14 July 1946	7 March 1946	14 July 1946
34-39	15 July 1946	26 September 1946	15 July 1946	30 November 1946
40-45	27 September 1946	22 December 1946	1 December 1946	20 April 1947
46-47	23 December 1946	26 March 1947	21 April 1947	25 May 1947
48-50	27 March 1947	30 June 1947	26 May 1947	30 June 1947
51-53	1 July 1947	31 July 1947	1 July 1947	30 September 1947
54-70	1 August 1947	30 September 1947		

In January 1946, Commands were asked to dispense with the services of all CMPs and civilian practitioners employed in ordnance factories, ordnance depots, recruiting organisations, civil labour units, etc., by giving them one month's notice in accordance with their terms of service.<sup>7</sup>

<sup>7</sup> F/2903/14/H(M)

(ii) *Nursing Officers*

- (a) Members of IMNS—retired re-employed, ANS(I) and IVAS. Those holding liens on civil appointments under the Provincial Government, local administration and railways.
- (b) Nursing officers of the AINSR—Amongst those recruited in the emergency commissions, those above the age of fifty years were to go first, followed by those above forty years. The remaining (except those granted permanent commissions) were to go in the order of juniority.<sup>8</sup>

In January 1946, in view of the decreasing commitments, it was decided to terminate the services of local service ANS(I) cadets.<sup>9</sup> In March of the same year, it was decided to release the ANS(I) cadets general service also. By 12 December 1946, the services of 205 ANS(I) local service, serving in the Army, were terminated.

*Cumulative totals and Age and Service Groups of Members of Nursing Services released, during 1946-47.<sup>10</sup>*

Age and service groups		Release orders issued by	Number released*	
IMNS	ANS(I)		IMNS	ANS(I)
1-12		September 1945	25	
1-21		18 October 1945	34	
1-25		18 December 1945	49	
1-25			52	
1-25			69	
1-27		15 March 1946	75	
1-28	1-28	15 April 1946	78	21
1-28	1-28	15 May 1946	84	41
1-29	1-29	15 June 1946	86	53
1-32	1-32	15 July 1946	139	67
1-36	1-36	15 August 1946	154	83
1-38	1-38	14 September 1946	165	111
1-40	1-40	14 October 1946	182	141
1-43	1-43	14 November 1946	283	212
1-45	1-45	14 December 1946	311	261
1-46	1-50	14 January 1947	323	332
1-57	1-57	14 February 1947	353	496
1-64	1-64	14 March 1947	393	655
1-66	1-66	14 April 1947	417	858
1-68	1-68	14 May 1947	428	985
1-68	1-68		438	1,038
1-69	1-69	14 July 1947	454	1,080

\*Cumulative total including nursing officers and cadets released on account of marriage priority.

<sup>8</sup> H/5/13/H(M)

<sup>9</sup> H/4/55/H(M)

<sup>10</sup> F/2903/14/H(M)

(iii) *VCOs (non medical), IORs and NCs(L)*

By 1946, the IAMC Demobilisation Centre was capable of releasing 400 men a day or approximately 8,000 in a month <sup>11</sup>

*Cumulative totals of VCOs, IORs and NCs(E) released, 1945-47*

Month	VCOs	IORs	NCs(E)	Total
September 1945		34*	19	53
October 1945		1923*	371	2294
November 1945	8	3362	905	4275
December 1945	15	5119	2659	8093
January 1946	28	8769	4537	13334
February 1946	106	11595	7624	19325
March 1946	195	14276	11068	25539
April 1946	284	17363	15255	32902
May 1946	371	21211	19193	40778
June 1946	426	23118	22282	46126
July 1946	489	26188	25887	52564
August 1946	603	29151	29918	59672
September 1946	691	31791	33164	65646
October 1946	811	35097	36628	72566
November 1946	955	38001	40173	79129
December 1946	1056	40576	43143	84775
January 1947	1189	43129	46599	91264
February 1947	1317	45812	49490	96666
March 1947	1416	49331	52565	103312
April 1947	1506	51657	55486	108649
May 1947	1635	53261	57408	112304
June 1947	1728	54074	58606	114408
July 1947	1774	54940	59639	116353

\*Include figures for VCOs also

Demobilisation of VCOs, IORs and NCs(E) personnel was carried out in three phases —

Phase 1— To clear demobilisation centres and training centres to make room for men returning for pre release vocational training and demobilisation

Phase 2— Demobilisation down to the establishment required for India and for the initial occupational forces

Phase 3— Demobilisation after the initial occupational force establishments had been reached down to the final peace-time establishment <sup>12</sup>

*VCOs IAMC*

On the disbandment of a medical unit a VCO on the strength of the unit was either employed to make up the deficiency in some

<sup>11</sup> L/6/2/H(M)

<sup>12</sup> Monograph *Demobilisation* published by the Combined Inter Services Historical Section (India and Pakistan) in 1948

other unit or was replaced by another VCO. Those VCOs who were rendered surplus were given the option of either electing to be released or reverting to the rank of havildar.<sup>13</sup>

### *IORs and NCs(E) IAMC*

As a general rule no IOR or NC(E) was released without his consent, unless he was actually surplus to requirements and was adversely reported upon by his commanding officer. Any IOR or NC(E) desirous of staying in the Army even on arrival at the demobilisation centre was given a chance to continue in service provided vacancies in his particular category were available and he was considered suitable by the commandant. Those of the non-disbanding units who were desirous of release were released as and when relief became available or as they became supernumerary to establishment in the reorganisation of units. IORs who were serving on regular engagement on 3 September 1939, and who had completed their colour service, could apply for extension of their service. Those who did not wish to have their service extended were transferred to reserve with Class 'A' release benefits.

The following qualifications were required for those who did not wish to be demobilised .—

#### *VCOs*

Ambulance section Indian Army Certificate of Education 1st Class.  
Nursing section Indian Army English Certificate 1st Class or Matriculation.

Clerical and Store section Indian Army English Certificate 1st Class or Matriculation.

Preference was given to those possessing Indian Army Special Certificate.

All VCOs not possessing the above mentioned educational qualifications were required to obtain these before 1 April 1947<sup>13</sup>

#### *NCOs*

Clerical and Store section Indian Army English Certificate 1st Class or Matriculation.

Typing speed of not less than twenty words per minute.

#### *Nursing Section*

- (i) Pre-war engagement ex-IHC, NCOs Indian Army English Certificate 3rd Class. Three (old pre-war) rates of nursing pay or 2nd nursing certificate (new IAMC syllabus).
- (ii) Nursing orderlies and specialist improvers and war engagement ex-IHC NCOs Indian Army English Certificate 2nd Class and 3rd (highest) nursing certificate (new IAMC syllabus).

<sup>13</sup> L/6/2/H(M)

Ambulance section Indian Army Certificate of Education 2nd Class Preference was given to those possessing Q-1 qualifications from NCOs' wing AMTC (junior or senior course)

NCOs not in possession of the above mentioned qualifications and who were desirous of retention in the post-war IAMC were required to obtain these qualifications as soon as possible <sup>14</sup>

#### RANK AND FILE

#### I Nursing Section —

- (i) Those with less than eighteen months' service were required to have a minimum qualification of first Nursing Certificate and Indian Army English Certificate 3rd Class
- (ii) Those with more than eighteen months' but less than three years' service were required to have a minimum 2nd Nursing Certificate and Indian Army English Certificate 3rd Class
- (iii) Those with more than three years' service were required to have 3rd (highest) Nursing Certificate and the Indian Army English Certificate 2nd Class

Mental nursing orderlies, special treatment orderlies, operating room attendants, laboratory assistants, masseurs and transfusion orderlies were, in addition, required to possess proficiency in their particular trade

#### II Ambulance Section

The Ambulance Section personnel were required to possess Indian Army Certificate of Education 3rd Class Men with only Recruits' Test, if otherwise suitable could also be considered for retention <sup>14</sup>

#### (iv) Special Cases

Special cases and cases of those who volunteered for early release were considered on the merit of each case Considerable latitude was given to the requests for release on compassionate grounds Cases of individuals, whose immediate release was asked for by the Central Government or the Provincial Governments to meet civil requirements were carefully considered <sup>15</sup>

Special priority was arranged for invalids and for those whose education had been interrupted and who wished to proceed to post graduate courses

Officers commanding medical units were made responsible for ensuring that all officers were released without delay at the proper time A small number of women medical officers was, however, retained beyond their age and service group They were allowed to continue indefinitely as deferred volunteers

<sup>14</sup> L/612/H(M)

<sup>15</sup> H/4/35/H(M)



There was a greater deficiency in the category of specialist medical officers than in the general duty medical officers. Consequently, in the case of medical officers, who were not eligible for any special priority for release on account of their lien on the Provincial Government service and railway service, etc., the release programme was regulated in such a manner that non-specialist medical officers left the service earlier than the specialists. This retardation in the release of specialist officers was effected by fixing separate age and service groups for their release.

During 1946-47, certain general duty medical officers holding key appointments were also permitted to continue despite their age and service groups. A nominal roll was published by the Medical Directorate showing them as 'Key' personnel.<sup>16</sup>

#### DISBANDMENT OF MEDICAL UNITS

Disbandment of medical units was started soon after the cessation of hostilities. Units as they became surplus to requirements were disbanded. From October 1945, the disbandment of all medical units was taken over by the Organisation Directorate of the AG's Branch. The Medical Directorate supplied them with lists of all medical units whose disbandment had been approved by the General Staff.<sup>17</sup> In all 1,052 medical units were disbanded from 15 August 1945 to 15 August 1947. During this period reduction in garrison hospital beds amounted to 33,829 hospital beds for Indian troops and 16,617 for British.

#### REDUCTION IN MEDICAL STAFFS AND ESTABLISHMENTS

Consequent on the reduction in the number of field medical units, reductions in the medical staff at GHQ and command headquarters were also effected.<sup>18</sup>

#### *Establishment—Medical Directorate, GHQ*

	1 October 1945	1 July 1946
Lieut-General	1	1
Brigadiers	15	3
Colonels	5	4
Lieut-Colonels	24	11
Majors	24	20
Captains	8	11
Liaison officers	3	—
Civilian gazetted officers	6	5
WAC(I) officers	5	—
DAAGs (Civilians)	1	3
Officer supervisors	7	5

<sup>16</sup> F/2582/H(M)

<sup>17</sup> F/2903/14/H(M)

<sup>18</sup> F/3603/38

Similar reductions in establishments were carried out at Command Headquarters

At the same time, a number of the measures sanctioned during the war were no longer necessary and could be dropped or reduced considerably in their scope. Accordingly, a review of all measures sanctioned since 3 September 1939, was carried out in October-November 1945, and they were to be classified in one of the following categories —<sup>19</sup>

- A—Measures which could be dispensed with
- B—Measures which must, of necessity, continue till the end of the emergency, viz., 1 April 1946, and then automatically lapse
- C—Measures which must continue until post-war pay and allowance code, pension rules, scales, rations and accommodation were finalised and put into effect or until particular appointments were abolished
- D—Measures which must follow the War Office policy and which consequently must remain in force until abolished by the War Office
- E—Measures which must be continued so long as economic conditions necessitated their continuance
- F—Measures which must continue until persons, animals, vehicles, installations, etc., to which they apply were either —
  - (i) Wasted out of the armed forces, or closed down
  - (ii) Ceased to be held on Indian establishment
  - (iii) Returned from overseas

These measures were gradually dispensed with or modified from time to time according to the changing conditions associated with the coming of peace.<sup>20</sup>

#### DISPOSAL OF MEDICAL STORES AND EQUIPMENT<sup>21</sup>

Reception centres for medical stores and equipment were formed at various important stations. The equipment of disbanding medical units was examined and, if serviceable, was despatched to the appropriate holding stores. Surplus stores were notified to the Disposals Directorate of the Government of India, which in turn arranged for their sale at the holding centres.

*Approximate tonnage of surplus Medical Stores that were notified to the Disposals Directorate from time to time*

By 15 August 1946	10,000 tons
During August 1946	900 tons
During September 1946	70 tons
During October 1946	400 tons
During November 1946	200 tons
During December 1946	900 tons
During January 1947	5,440 tons
<b>TOTAL</b>	<b>17,910 tons</b>

<sup>19</sup> F/2905/10/H(M)

<sup>20</sup> F/0320/6/H(M)

<sup>21</sup> Instructions for disposal of stores of disbanding units were included in *Release Regulations Indian Army*. Also see page 349

By 31 January 1947, 100 per cent. declaration of surplus medical stores had been made to the Disposals Directorate.<sup>22</sup>

#### OTHER MEASURES CONNECTED WITH DEMOBILISATION

Other problems connected with demobilisation may also be briefly mentioned. These included the following:—<sup>23</sup>

- (i) Disposal of the sick and wounded and other medical arrangements in connection with demobilisation.
- (ii) Medical arrangements in connection with POW recovered from Japanese hands.
- (iii) Care of the disabled soldiers.
- (iv) Pre-release training and resettlement.

#### DISPOSAL OF SICK AND WOUNDED AND OTHER MEDICAL ARRANGEMENTS IN CONNECTION WITH DEMOBILISATION

The disposal of sick and wounded included the following measures :—

- (i) Evacuation from overseas forces, either direct to the United Kingdom or *via* India.
- (ii) Evacuation from India to the United Kingdom.
- (iii) Direct repatriation where possible.
- (iv) Transfer of Dominion sick to the appropriate Dominion hospitals.
- (v) Transfer of Indian Army sick to the hospitals in India.
- (vi) Selection of hospitals for those requiring specialist treatment.
- (vii) Selection of hospitals for such POW as were too ill to be repatriated with other prisoners.
- (viii) Medical examination and record of all ranks before final disposal.
- (ix) Medical boards in connection with pensions for illness or disability due to military service.

Instructions for medical examination and records of all ranks before their final dispersal were published in the *Release Regulations, Indian Army*.

#### MEDICAL ARRANGEMENTS IN CONNECTION WITH THE POW RECOVERED FROM JAPANESE HANDS

POW recovered from Japanese hands in the South West Pacific were brought to Australia and thence to India. The ports of disembarkation in India were Madras and Calcutta. In June 1944, a reception camp for the POW was formed in Australia and a medical

<sup>22</sup>F/2903/14/H(M)

<sup>23</sup>A/4/25/H(M)

officer (major) was authorised on the staff of the camp. Invalids arriving in India were despatched to the base hospitals in stations shown below by GHQ Evacuation and Distribution staff<sup>24</sup>

Indians	Dinapore (from Calcutta), Bangalore (from Madras)
British	Ranchi (from Calcutta), Bangalore (from Madras)
East Africans	No 141 East African General Hospital, Aundh
West Africans	No 40 West African General Hospital, Aundh West African Convalescent Hospital, Dhond
Americans	No 142 American General Hospital, Secunderabad
Nurses	Secunderabad

The pre release training, and resettlement and care of disabled soldiers, are discussed in the chapter on Resettlement

<sup>24</sup> F/3610/3/H(M)

## CHAPTER XVII

### Resettlement<sup>1</sup>

The aftermath of World War I had demonstrated the employment and resettlement difficulties which could be expected to arise during and immediately after the process of the release of personnel from the armed forces. It was necessary to pay particular attention to the post-war resettlement problems and to make plans well in advance.

The object of resettlement is to avoid unemployment by assisting those entitled to help on account of their war service so that they do not remain without work for an unduly long time. Although resettlement is mainly a civil responsibility, yet it is obvious that the military and the civil authorities must work together. General considerations directly related to the resettlement of demobilised personnel are that before the men are released they are given training to assist them in finding civilian employment ; that the rate of demobilisation is regulated in accordance with the capability of the civil organisation to handle the released men ; and that a civil organisation is provided for the particular needs of those men who want assistance in securing employment. In the wider interpretation of these broad principles it follows that employment should be found on suitable terms and conditions and that such employment should be congenial and in accordance with the individual's training, experience, ability, age, and as far as possible, his wishes. It was anticipated that not all ex-servicemen and women would seek employment immediately after release. Many, especially the younger ones, would wish to embark upon one of the several forms of training and further education. As such training and education would be taken primarily in order to fit the individual for later employment, it was consistent with the general aims of resettlement that it should include the placing of ex-service students in suitable training institutions. This has been the case in practice, and resettlement embraces both training and employment.

The planning for resettlement was started as early as 1942, when the Demobilisation and Reconstruction Directorate was set up. This Directorate was later divided into two portions, *viz.*, the Demobilisation Directorate and the Resettlement Directorate. In 1943, the work concerned with planning the resettlement and re-employment of demobilised ex-servicemen was transferred to the Directorate of Welfare and Amenities.<sup>2</sup>

<sup>1</sup> See also Monograph *Resettlement* published by the Combined Inter Services Historical Section, (India and Pakistan) in 1950

<sup>2</sup> H/4/55/H(M)

## MEDICAL RESETTLEMENT ORGANISATION

By early 1944, both DGIMS and the Director of Resettlement were concerning themselves with the resettlement of released medical personnel with consequent duplication of effort. Consultations were then held and it was suggested that DGIMS alone should undertake this particular resettlement work which had its own technical issues.

In 1944, the officer-in-charge of the Personnel Section of the office of the DGIMS undertook the initial steps in setting up a resettlement organisation dealing purely with the training and employment of released medical and nursing personnel after the war. At the same time, the Central Medical Resettlement Committee was brought into being and was charged with the task of considering all problems relating to the resettlement of released members of the medical services. The Committee was also to make such recommendations in this connection to the Government of India as it might, from time to time, consider to be advisable. The Committee consisted of the Joint Secretary, Education, Health and Lands Department, Government of India, as Chairman, and representatives of the Resettlement, Demobilisation and Medical Directorates as members. The officers selected to represent DGIMS were the Public Health Commissioner, the Chief Lady Superintendent, and the ADGIMS in charge of resettlement. A separate section known as 'Personnel Section III' was formed in the office of DGIMS to deal with resettlement work. Early in 1945, a whole time IMS officer was posted for resettlement work. During that year the work expanded at a rapid pace. In January 1946, the Section (Personnel III) became Resettlement Section. The staff of the Section in 1946 was as follows —

- 1 DDGIMS
- 1 ADGIMS
- 1 DADGIMS
- 1 OS
- 1 Superintendent
- 2 Assistants in charge
- 57 Assistants and clerks

It was agreed that each province would resettle its own returning ex servicemen. As the Indian provinces were all autonomous in respect of medical and public health services it was necessary to take each province as the resettlement unit and to decentralise the work so that it might fit in with the provincial administration. In order, however, to ensure a standard system of working throughout India, and in order to co ordinate resettlement planning and to ensure liaison between the military and civil authorities it was essential to continue the Resettlement Section in the office of DGIMS, later Director General Health Services (DGHS).<sup>3</sup>

<sup>3</sup> H/4/5/H(M)

Education in regional languages up to literacy stage was compulsory for semi-literates and illiterates. The chief languages taught were Hindi, Urdu, Bengali, Punjabi, Gorkhali, Tamil, Telegu, Malayalam and Marathi. In addition, subjects like citizenship, rural and urban uplift and current affairs were taught to all by means of talks, discussions, competitive quizzes, etc.

For those who wished to obtain higher Indian Army Certificates of Education, special classes were arranged. Men were encouraged to have a hobby which they could actively pursue afterwards. Free hand drawing, painting in water colours, sketching and fancy leather work were a few of the activities in this direction. The idea was to develop individuality.

The object of training in agriculture and allied subjects was not to turn out the 'complete farmer' but to introduce the individual to better methods, to show him how to make the best of resources available to him, and to inculcate a desire on his part for improvement. It was found that the average man held very conservative views about methods of agriculture and in the beginning he started with the conviction that his own way of doing things was the only right way and that he had nothing to learn. This initial resistance had to be broken down by visual instruction and demonstrations. Once this was done he went ahead very quickly and was full of questions on ways and methods for improving his own farm.

Agricultural training was divided into two main parts, general agriculture and selected subjects.

The general agriculture syllabus included proper methods of ploughing, manuring, irrigation, sowing, rotation of crops, mixed farming, anti-erosion measures, production of fodder, silage, etc.

The selected subjects included fruit orcharding, vegetable farming, manuring, sheep, goat, rabbit, poultry and dairy farming, animal husbandry and cattle breeding.

The course in general agriculture was compulsory for all those who volunteered for training in agriculture. In addition they could take one subject from the selected list.

In No. 2 Centre fifteen acres were under cultivation in the agricultural demonstration plots which were laid out to demonstrate all aspects of this training. An additional thirty acres were under cultivation in connection with the 'Grow More Food' campaign and formed an additional training ground. No. 3 Centre had twenty-five acres of dry farming agricultural land, and thirteen acres of irrigated land.

Thousands of pounds of vegetables were produced from these plots monthly and this yield was sold. Orchards of mangoes, guavas and citrus fruits that were planted there, are now bearing fruit.

In No. 2 Centre cows of Red *Sindhu* and *Sahiwal* breeds were maintained; the average yield of milk in the farm was 200 pounds daily. The milk was sold to families within the centre. In No. 3 Centre

cows and buffaloes of well-known South Indian breeds were maintained

The following cottage industries were selected in consultation with the representatives of the United Provinces and Bombay Governments as being the most suitable for personnel going out of the Army —

Weaving <i>dhola</i> , <i>sari</i> , <i>marheen</i>	<i>Niwar</i> and <i>durri</i> weaving
Soap making	Reed and leaf mat making
Cane and basket work	Rope and net making
<i>Bidi</i> making	Calico printing
Tailoring	Cycle repairing
Boot repairing	Tinsmithy
Carpentry	Blacksmithy

Men who desired training in subjects that were not catered for in one of the IAMC Centres, were trained in those demobilisation centres of other arms where facilities for that particular kind of training were available

Whilst the training given was not long enough to enable the individual to compete with skilled craftsmen it was sufficient to enable him to make a start with a view to becoming an expert with further practice.

All articles made in the centres were sold and profits were credited to the government. This amount was reimbursed partly to meet the expenses incurred on the establishment of the industries in the centre

Both the United Provinces and Bombay Governments took a very keen interest in pre release training and helped by providing advice and staff. The United Provinces Government paid special attention to co operative methods of farming and cottage industries and gave facilities for all instructors to be trained by their Co-operative Department. In addition the Director of Public Health, United Provinces, helped by arranging special instructors' courses in village-health, hygiene and sanitation

Release period education was discontinued with effect from 1 April 1947,<sup>10</sup> and pre-release training in general was discontinued on 31 May 1947. All equipment taken on loan from the Provincial Governments was returned to them. Military equipment was disposed of departmentally

#### OTHER CONCESSIONS

IAMC personnel along with the rest of the personnel of the Indian Army received various concessions and facilities such as assistance in forming co operative societies, land colonisation, employment facilities, etc

In April 1942, the Government of India constituted a fund with the object of providing money for assisting in the resettlement of Indian

<sup>10</sup> VI(1):6/5/47



servicemen in civil life after the war. The money was not to be distributed among individuals, but was to be used to finance approved plans and projects for the general welfare of ex-servicemen. The Government of India contributed to the fund at the rate of Rs. 2 for each combatant and Re. 1 for each non-combatant. Contributions to the fund ceased on 31 March 1946, on which date the amount in the fund was approximately rupees thirteen crores. On 20 July 1945, it was decided that 20 per cent. of the fund should be administered as a Central Fund known as the 'Armed Forces Reconstruction Fund' and the remainder distributed among the provinces and states on a *pro rata* basis of men recruited.

#### REHABILITATION OF THE DISABLED EX-SERVICEMEN

Up to 1945, disabled servicemen were discharged from the service at the end of their hospital treatment, and the responsibility of the Government of India ended with the award of a disability pension. It was obvious that the disabled serviceman could be rehabilitated and turned into a useful member of society. He could be trained to supplement his disability pension by working at some useful craft or occupation. By the middle of 1945 the rehabilitation scheme was initiated. The scheme comprised the following stages : hospital treatment, post-hospital rehabilitation, specialised training, employment and after-care.

In November 1945, it was decided that the rehabilitation and resettlement of the disabled personnel of the Indian Army was the joint responsibility of the War Department and the Labour Department. The former was responsible for all necessary measures up to, and including, post-hospital rehabilitation. The post-hospital rehabilitation was intended to be the joint responsibility of the Resettlement Directorate and the Medical Directorate. In practice, the Resettlement Directorate became entirely responsible for the rehabilitation and only consulted the Medical Directorate whenever necessary. The specialist training for employment, including training under sheltered conditions, and finding employment for the disabled were the responsibility of the Department of Labour. The after-care of the disabled was the responsibility of the Civil Departments.<sup>11</sup>

A disabled person was defined as one who, on account of injury, disease, or deformity attributable to service in the Defence Services since September 1939, was substantially handicapped in obtaining and keeping employment or in undertaking work of a kind which, apart from such injury, disease or deformity, would be suited to his age, experience and qualifications.

The disabilities were categorised as below :—

- (i) Loss of limb or loss of use of limb.
- (ii) General medical and surgical disabilities
- (iii) Loss of speech

<sup>11</sup> Monograph *Resettlement* published by the Combined Inter Services Historical Section, (India and Pakistan) in 1950

- (iv) Deafness
- (v) Blindness, and material impairment of vision
- (vi) Pulmonary tuberculosis
- (vii) Mental diseases

The Resettlement Directorate established seven convalescent rehabilitation centres, with a total capacity of 5,500 men. The disabled servicemen underwent mental and physical rehabilitation in these centres for a period of approximately three months. The scheme had to cater for two groups of men of the armed forces, *viz.*, about 35,000 men who had already been discharged since September 1939 and about 25,000 serving men who were likely to be eligible for rehabilitation. The object was to make the men mentally and physically fit and to increase their capacity for further training. Plans were drawn up to contact all discharged personnel eligible under the scheme. By the end of 1946, the following Services Convalescent Rehabilitation Centres (SCRCs) were established:

<i>Number</i>	<i>Location</i>	<i>Trainees</i>
1	Bangalore	1,000
2	Moradabad	1,000
3	Kirkee	1,000
4	Secunderabad	1,000
5	Bareilly	500
6	Rawalpindi	500
7	Lahore	500

Specially trained rehabilitation officers were posted to each SCRC. These officers interviewed each disabled man and assessed his future capacity, consulted the medical officer regarding his physical and mental condition, allocated men to the Department of Labour Training Centres and completed each individual's record card which contained details of his disability, qualifications and the type of training recommended. In addition to SCRCs, certain other specialised centres functioned for disabled ex-servicemen. A brief reference is made below to some of the important specialised centres.<sup>12</sup>

#### 51 DUNSTAN'S HOSTEL

St Dunstan's section of the Viceroy's Fund was started in November 1939, with contributions of rupees one lakh. The fund grew steadily. The receipts up to February 1948, amounted to approximately rupees thirty-three lakhs. The contribution of the Army towards St Dunstan's Hostel included accommodation, rations, clothing, transport, payment to certain members of the civilian staff and the provision of one jemadar, eight sepoy, one nursing orderly and two MT drivers. The cost of the above mentioned items is estimated to be about Rs 81,000. In the beginning the prospects

<sup>12</sup> Monograph *Resettlement* published by the Combined Inter Services Historical Section, (India and Pakistan) in 1950.

of success of the centre appeared to be slender, but owing to the untiring efforts of its commandant Sir Clutha Mackenzie, the hostel developed into a well organised and popular establishment. By December 1946, 328 war blinded soldiers had taken advantage of the facilities provided by the St. Dunstan's Hostel.<sup>13</sup>

#### DISABLED SOLDIERS HOME

The Indian Red Cross Society opened two homes for disabled soldiers, one in Bangalore in February 1947, and another in Sialkot in March 1947. On 16 August 1947, the number of invalids in the homes was 107, 79 at Sialkot and 28 at Bangalore. The types of cases admitted to these homes were all forms of serious paralysis, seriously disabled cases of tuberculosis of the bones or joints, crippling arthritis, serious disablement from loss of limbs, nerve or brain injuries (not mental cases) and any other cases of serious disablement from injury or disease which required nursing.<sup>14</sup>

#### QUEEN MARY'S TECHNICAL SCHOOL FOR DISABLED INDIAN SOLDIERS

Engine and motor car driving, tailoring, knitting, weaving, carpentry, etc., were taught to disabled soldiers at the Queen Mary's Technical School, Kirkee. Up to June 1949, 2,741 ex-servicemen were granted diplomas at this School. The Indian Red Cross, through the Ministry of Labour, contributed Rs. 200 per trainee for helping the disabled to start a trade.<sup>15</sup>

#### DEAF AND DUMB SCHOOL

Arrangements were also made with the Deaf and Dumb School at Lucknow to train twenty-five disabled men at a time. A hearing aid centre was also opened at the CMH Jalahali West. The disabled men from the hearing aid centre were either sent to the lip reading centre or for rehabilitation at a SCRC. Hearing appliances were also provided, although it was at first difficult to obtain these.<sup>16</sup>

#### LABOUR DEPARTMENT TRAINING SCHOOLS FOR THE DISABLED

By 1946, the Department of Labour had opened training centres for the disabled at Jalahali, Aundh, Madras and Delhi. Each of these centres was provided with one officer, one VCO, two Naiks, two havildars, one medical officer and two nursing orderlies by the War Department. Certain equipment and stores from Ordnance sources, rations from the RIASC and furniture from the Military Engineering Service were also provided to these centres.<sup>16</sup>

<sup>13</sup> H/5/32 For details see Appendix II

<sup>14</sup> C/2/47/H(M) For details see Appendix I

<sup>15</sup> C/2/46/H(M) For details see Appendix III

<sup>16</sup> Monograph *Resettlement* published by the Combined Inter Services Historical Section, (India and Pakistan) in 1950

## MENTAL CASES

The number of Indian soldiers, who had been invalided from service on account of mental diseases since 1939, was as follows —

<i>Year</i>	<i>Number</i>
1939	60
1940	140
1941	260
1942	615
1943	1,885
1944	3,937
1945	3,678

Of this number between 100 and 200 in each year required admission to an institution. It was decided that these patients should be sent to the mental hospital in the province of their domicile, with the consent of the Provincial Government concerned.<sup>17</sup>

## PULMONARY TUBERCULOSIS

The number of invalidments from the Indian Army on account of pulmonary tuberculosis was as follows —

<i>Year</i>	<i>Number</i>
1939	200
1940	354
1941	574
1942	978
1943	1,795
1944	2,002
1945	1,585

In 1941, the Tuberculosis Association of India placed at the disposal of the Ministry of Defence, fifteen beds at Lady Lidlithgow Sanatorium, Kasauli, against a Government recurrent grant of Rs 20,000 for the treatment of Indian soldiers who had been invalided out of the Army on account of tuberculosis. The number of beds was reduced to ten in May 1947, at the request of the Ministry of Health. In the same year (1947) the Tuberculosis Association of India with the co-operation of the Defence Department constructed a separate ward of forty beds in the Kasauli Sanatorium for the treatment of service personnel.<sup>18</sup> Since 1948, the Government of India has been paying the actual cost of the beds for the service personnel in Kasauli. A tuberculosis centre was also established in Deolali. In July 1945, this was merged with No 8 IBGH(C) at Aundh. The bed strength of the hospital was 1,250. The hospital catered for Indian (VCOs, IORs NCs(E)), Anglo-Indian, Colonial, Dominion, and Domiciled Europeans personnel.

<sup>17</sup> H/4/55/H(M)<sup>18</sup> H/4/48/H(M)

Arrangements for their treatment were also made at CMHs Ranchi, Abbottabad and Dehra Dun. With gradual demobilisation the strength of No. 8 IBGH(C) was reduced to 800 beds. The policy regarding tuberculosis treatment for service personnel was again revised in 1947, and it was decided that the tuberculosis patients should be invalided out of service by 28 February 1947. From that date they received treatment as pensioners.

In response to the request of the Tuberculosis Association in 1946, a grant of ten lakhs of rupees was given to the association from the Viceroy's War Purposes Fund for assisting ex-service tuberculosis patients taking treatment in the institutions approved by the Association. In addition to paying the hospital charges of ex-servicemen, the Association pays in most cases special pocket allowance and the cost of special medicines such as Streptomycin and PAS. Admissions to these institutions are made by the DMS, the Indian Soldiers and Sailors and Airmen Board, Ministry of Defence, and its branches all over India.

#### LEPROSY

Cases of leprosy occurring within two years of enrolment were not considered attributable to military service. Other cases were examined against the background of the individual's service. Men suffering from this disease could not be retained in the Army after arrangements for their accommodation in civil institutions had been made. Invalidments on account of leprosy from the Indian Army were as under :—

<i>Year</i>	<i>Number</i>
1939 .. ..	4
1940 . . .	18
1941 . . .	—
1942 . . .	—
1943 . . .	681
1944 . . .	948
1945 . . .	579

The responsibility for the further care of these men devolved on the civil authorities, who agreed to carry out a survey of leper institutions for discharged military personnel with special reference to the suitability of the accommodation. The maintenance charges in respect of these were debited to the Defence Services.<sup>19</sup>

## CHAPTER XVIII

# Military Medical Relief in Bengal Famine

Bengal, having an area of 77,442 square miles, was inhabited by over sixty million people in 1942. The bulk of the population (9/10th) lived in 84,000 villages, and its economic level was low. The population had increased by over eighteen million between 1901 and 1941 but agricultural production had not kept pace with the growth of the population,<sup>1</sup> nor had the industrial growth been sufficient to relieve the pressure on the land. Malaria, kala-azar, hook-worm, dysentery, anaemia and tuberculosis were endemic in the province. Epidemics were not infrequent. Large sections of the population were poor and undernourished or malnourished. These conditions were aggravated soon after the war broke out.

The position, already bad enough, was made worse when the food situation showed signs of deteriorating. Inevitably the province was soon in the vile grip of a severe famine. Epidemics broke out in the affected areas. Hundreds of thousands started dragging themselves to Calcutta, Dacca and Chittagong for food. Many of them died. The number of deaths during 1943 and 1944 is estimated to have been 3,627,778.<sup>2</sup> Immediate relief measures could not prevent wholesale starvation and the existing medical and public health resources were overwhelmed by the enormous number of famine casualties. The need for effective measures to fight starvation and disease was compelling.

At the end of October 1943, the Viceroy, Lord Wavell, visited Bengal. On 28 October 1943, immediately after the completion of his tour, he asked for prompt assistance from the military. Thereupon, Major-General V T Wakely, with certain other officers, was made available to assist the Bengal Government in organising and controlling the movement of food from Calcutta and other main centres to the distribution points in the rural areas. Major-General Wakely was appointed Director of Movements, Civil Supplies, and the GOC-in-C, Eastern Command, was appointed the Supreme Military Liaison Authority. Thus was the campaign for famine relief in Bengal initiated by the military forces.

On 1 November 1943, the C-in C directed the following formations and units with all their wheeled transport to move to Bengal as early as possible —<sup>3</sup>

- 268th Infantry Brigade (Lorried) complete with ancillary units
- 2nd Bombay Grenadiers less one company
- 4th Bombay Grenadiers
- 6th Baluch

<sup>1</sup> Famine Enquiry Commission, Report on Bengal

<sup>2</sup> Lieut. Colonel K. S. Fitch, OBE, FRCS(Ed), IMS late Deputy Surgeon General (Famine Relief) Bengal. *A Medical History of the Bengal Famine, 1943-44*. Calcutta Government of India Press. L/5/25/H(M)

<sup>3</sup> F/20003/H(M)

18th Mahiattas  
 18th Rajput.  
 Two field ambulances  
 One CCS

In addition, the following units joined subsequently —

Two workshop companies.  
 Two civil pioneer battalions  
 One composite issue section.  
 One field post office  
 Detachment 4th Indian Tank Brigade Recovery Company.  
 Two field companies, Indian Engineers  
 Ten supply sections.  
 No 42 IGH (ten sections)  
 No. 79 IGH (two sections)  
 No. 53 Field Hygiene Section and other small RIASC and medical units

These troops were placed under the command of Major-General D. Stuart, Commander 303 Sub-area. Colonel D. MacD. Fraser, IAMC, was appointed Medical Adviser, Famine Relief.

By 11 November, advance parties of the troops had reached the affected areas and by 27 November, all the allotted troops were busy rendering relief. The main duties of the troops were as follows .—

- (i) to escort the convoys of foodstuffs anywhere between the points of origin and relief feeding centres and to guard dumps of foodstuffs;
- (ii) to provide military vehicles to carry bulk supplies from the bases to the district distribution centres,
- (iii) to provide medical relief, both preventive and curative ;
- (iv) to load and unload foodstuffs at the transshipment and distribution points and to provide personnel for supply duties at the distribution points

Troops were not, however, used for procurement of supplies. The military plan soon became fully operative and resulted in considerable restoration of public confidence and immediate improvement.

#### MILITARY MEDICAL RELIEF ARRANGEMENTS

On 13 November 1943, a conference was held at Headquarters Eastern Command to discuss the question of medical aid by the Army for famine relief and was attended by the GOC-in-C, Eastern Command, DGIMS, DMS in India, Brigadier General Staff, Major-General incharge of administration, Eastern Command, and the Chief Secretary to the Government of Bengal. The DGIMS stated that there were only 6,200 hospital beds in the whole of Bengal and that only one hospital (Dacca) was under the direct control of the government. The remaining hospitals were all run by local boards and depended for their efficiency purely on local enterprise. There was no standardisation of equipment. The Surgeon General, Bengal, was, however, arranging to strengthen all existing hospitals

as much as possible and to increase the efficiency and capacity of all existing dispensaries by providing equipment and drugs for ten to twenty beds. The epidemic graph available indicated that deaths from cholera might amount to 10,000 per week. Inoculation and vaccination were being organised so that one unit could deal with approximately six villages per day.<sup>4</sup>

No accurate information was available to show either the amount or the type of the medical aid required. It was, however, obvious that the problem was truly colossal and that there was a grave danger of widespread epidemics involving tremendous loss of life should they occur in a province so ill-prepared to fight them. It was decided, therefore, that the Army could prove most helpful by concentrating on the preventive side of relief and at the same time doing as much curative work as possible. Thereupon, GHQ allotted the following units and staff for this purpose and these were initially located in the places shown against each —

#### Staff

Medical Adviser, Famine Relief	1
ADH	1
DADsH	10
General duty officers	89

#### Units

No 42 IGH (headquarters and ten sections)	Barrackpore
No 79 IGH (two sections only)	Barrackpore
No 28 CCS	Narayanganj
No 78 Burma Field Ambulance	Khulna
No 9 Light Field Ambulance	Baruipur
No 53 Field Hygiene Section	Barrackpore
No 49 Field Laboratory	Baruipur
No 27 Motor Ambulance Section	Calcutta

In addition, a mobile laboratory carried out valuable research work on nutritional defects associated with post famine conditions.

The medical plan was arranged to provide for (a) prevention of the spread of epidemic diseases, (b) medical aid to famine victims, (c) maintenance of the health of troops engaged on famine relief.

The military medical plan was co-ordinated with that of the civil authorities. Liaison with the Surgeon General and the Director of Public Health of the Government of Bengal was fully maintained.<sup>5</sup> Further, in November 1943, an IMS officer was made available to the Government of Bengal for appointment as the Director of Public Health and seven IMS officers were released from military service and returned to Bengal for duty during the first half of 1944.<sup>6</sup>

#### PREVENTION OF THE SPREAD OF EPIDEMIC DISEASES

Each of the twenty-six districts of Bengal had an average of five sub divisions, each of eight *thanas*. Each *thana* had a population of

<sup>4</sup> F/40003/H(VI)

<sup>5</sup> H/6/12/H(VI)

<sup>6</sup> Famine Inquiry Commission—Report on Bengal



approximately 80,000 and an area of nearly eighty square miles. It was not possible for one civil district health officer to exercise effective supervision over such a wide area. There was thus an urgent need for expanding the staff, but there was a grave shortage of medical personnel. This shortage was met by appointing military medical officers to act as sub-divisional health officers (SDHOs). It was also agreed that the Provincial Government would recruit additional subordinate staff (1,000 civil assistants of sanitary inspectors status) to work under the military SDHOs.

Fifty-six officers selected for employment as SDHOs were given an intensive short course of training by the All India Institute of Hygiene at the Singur Health Unit, situated twenty miles outside Calcutta. The syllabus of training was designed to prepare officers for the following duties :—

- (i) to take effective steps to remedy a serious lapse in the collection of vital statistics and to ensure the rapid submission of reliable vital data to the headquarters ;
- (ii) to organise wholesale inoculation against cholera and vaccination against small-pox ,
- (iii) to improve water supply by adequate sterilisation ;
- (iv) to distribute quinine to control the ravages of malaria

The work of the SDHOs was supervised by the DADsH and the ADH. The ADH was stationed at the headquarters and was assisted by two DADsH. The remaining eight DADsH were posted to groups of districts as additional assistant directors of public health. They were initially located at Mymensingh, Jessore, Dacca, Berhampore, Bogra, Chinsura, Comilla and Rangpur.

The military hygiene officers were the backbone of the health service and performed most arduous tasks under difficult conditions. The energy and enterprise shown by these officers under the leadership of the ADH were largely responsible for the success of the health drive. The general policy was decided by the Director of Public Health, Bengal, in conjunction with the ADH at the military headquarters. The DADsH were essentially touring officers. They were available for advice and assistance to any military detachment but they normally concentrated on preventive measures, the brunt of which fell on SDHOs. The recruitment of 1,000 civil assistants was not very successful as candidates with the required qualifications did not come forward. Standards were lowered to the matriculation status and it was not till the middle of January that the required number could be posted. This put an additional strain on SDHOs and delayed the drive for the control of epidemics. The SDHOs in the beginning were, consequently, kept busy in giving inoculations and vaccinations and in distributing quinine rather than in planning, organising and controlling the work of their subordinates.

Intensive propaganda was necessary to overcome the reluctance of the people to undergo preventive inoculation and vaccination when

there were no cases of cholera or small pox in the immediate vicinity. Much ingenuity was employed by various officers to bring home the necessity for protection before disease appeared in their midst. Advantage was also taken of such popular relief measures as cloth distributing centres for such propaganda. Public meetings were addressed and demonstrations held in each *thana* by military and civil officers. The assistance of the presidents of unions, boards, of influential local officials and of the public was sought. Pickets had also to be posted in some places on the roads leading to and from the local markets. To publicise the necessity of helping the health drive a broadcast talk was also given by the Medical Adviser, Famine Relief, on 1 February 1944. All this was for the purpose of facilitating the systematic vaccination and inoculation of large groups of villagers at a time according to a well planned and pre-arranged programme. Special teams were despatched to the places where local outbreaks of small-pox or cholera were reported, but without any disturbance of the planned drive.

Total inoculations and vaccinations performed by the Army organisation up to 25 April 1944, were 3,521,752, cholera inoculation 1,326,398 and small-pox vaccination 1,195,354.

Cholera, which threatened Bengal in November 1943, was rapidly brought under control. Murshidabad district statistics may be cited as a good example. In the district the numbers of deaths from cholera in 1943 were 1,149 in October, 1,179 in November, and 903 in December. In March 1944, there were only seven deaths and after 12 March, no new cases were reported. Similarly a small-pox epidemic which started in January 1944, found the vaccination campaign well organised and in operation. Quinine was distributed freely in the affected rural areas, and more than one third of the whole of India's annual peace time consumption of quinine was distributed in the province during November and December 1943 and January 1944.

No 53 Hygiene Section was employed in carrying out improvements in the sanitation of military and civil hospitals and destitute homes. The standard of efficiency of this unit was excellent.

#### MEDICAL TREATMENT OF FAMINE VICTIMS

The initial plan was based on the experience of civil hospitals working in Calcutta during September and October 1943. The cases could be divided roughly into three groups (a) those suffering from inanition due to starvation only, (b) those suffering from inanition due to both starvation and disease (this formed the largest group), (c) those showing little inanition but suffering from acute diseases.

It was decided that military hospitals should be established in as large numbers as possible and sited to cover the major gaps in the existing civil organisation. To provide the maximum medical cover it was necessary to divide the available military units into small detachments. Hospitals of 100 beds were formed by sections of the

IGHs. The two field ambulances and the CCSs were initially split into three fifty-bedded units. Additional medical officers and equipment were provided to allow an expansion to three times their capacity. Arrangements were made to provide the necessary personnel, such as cooks and sweepers, from civil sources. It was also decided that hospital treatment should be confined to acute cases and that these should be discharged as soon as they were fit for outdoor treatment and feeding in the 'food kitchens'. Surgical cases and chronic invalids were to be transferred to special hospitals established by the civil authorities.

The above plan, however, had to be modified when it became apparent that it was very necessary to provide extensive treatment to the population in the villages and bring immediate relief to prevent thousands from sinking to a level where hospital treatment would become necessary.

In view of the highly mobile nature of a light field ambulance it was decided that No. 9 Light Field Ambulance should open only one hospital instead of three and that the remaining sections should be organised to form mobile detachments to tour rural areas. Orders were issued to all the hospitals to limit their expansion to the minimum required and to devote as much of their resources as possible to the development of mobile treatment centres. Thus, thousands of cases could be treated as against the very limited number that could be attended to by the available units.

The organisation of these centres called for ingenuity and initiative on the part of the officers in charge and this was forthcoming in a large measure. The principle underlying all treatment was that a complete course of treatment was necessary. It was accepted that treatment should be for seven consecutive days. But if the nature of the terrain demanded that treatment could be given only every second day, then the period spent in that area was extended to ensure that a complete course of treatment was given. The composition and transport of these mobile centres varied to suit the terrain. The unit had to move on foot, in lorries, trucks, launches, country boats, on horses and bicycles. During January and February, jeeps were provided which proved of great value in enabling these centres to cover a wide radius of action and to move more quickly. The military medical units provided seventeen hospitals with 2,150 beds and sixty-one mobile centres. The number of cases treated in these units up to 25 April 1944, was 1,135,589.

To assist the medical officers—both civil and military—employed in the treatment of the destitute sick a sub-committee of the research unit prepared a scheme for the treatment of all common conditions. The Adviser in Nutrition GHQ and the Professor of Nutrition and Biochemistry, All India Institute of Hygiene and Public Health, prepared a scheme of dietetic treatment, for various types of cases, suitable for adoption for mass treatment in the hospitals. A pamphlet on the *Treatment and Management of Starving Sick Destitutes*

was also prepared by a Committee of the Indian Research Fund Association<sup>7</sup>

CIVIL MEDICAL UNITS<sup>8</sup>

The military medical units worked in close collaboration with civil medical organisation. The civilian medical units consisted of the following —

Number of hospitals opened up to 15 November 1944	
100 beds	61
50 beds	90
20 beds	431
Number of mobile medical units opened up to 15 November 1944	195
Number of satellite centres opened	1,352

The hospitals of 100 beds and 50 beds could expand in multiples of 100 beds and 50 beds. Their control was under the district civil surgeon.

The twenty-bed units were attached to the district outdoor dispensaries. The satellite centres were outdoor clinics situated within five miles of the local dispensary. These centres were housed in the verandhas or in rooms lent by their owners, sometimes even under trees in the dry season.

Mobile units, similar to those which were originally initiated by the Army, were also organised for work under the civil surgeons of the area. They moved from place to place like military mobile units.

The following figures will further illustrate the work done by the civil medical relief organisation up to 15 November 1944 —

Total number of beds in hospitals	19,220
Number of doctors (excluding Burma medical officers and two temporary assistant surgeons from the Central Provinces and Berar)	356
Number of nursing staff	2,852
Patients treated in Calcutta	24,551
Patients treated in the mofussil	2,03,702

Many private organisations also provided valuable relief. Amongst the more important ones may be mentioned the Bengal Relief Committee, Marwari Relief Association, Hindu Maha Sabha, Bengal Civil Protection Committee, Bengal Muslim League Relief Committee, Indian Red Cross Society, Friends Ambulance Unit and the Rama Krishna Mission.

<sup>7</sup> H/6/12/H(M)

<sup>8</sup> For details see Lieut Colonel K. S. Fitch, OBE FRCS(Ed.) *IMS A Medical History of the Bengal Famine, 1943-44* Calcutta: Government of India Press.

To integrate the work done by the military hospitals and mobile treatment centres with that of the civil organisation and to ensure that medical planning and action kept abreast of the ever changing situation, three senior military medical officers were detailed to take general charge of the different areas—one east of the Meghna river, one in the central area and one in the cyclone area. These officers also helped to control and inspect the civil units and gave general assistance to any group working for the famine relief.

#### MAINTENANCE OF THE HEALTH OF TROOPS ENGAGED ON FAMINE RELIEF

Military RAPs were formed at each company location. Personnel requiring admission to hospital were evacuated to military hospitals.

All personnel were vaccinated and inoculated (TAB and cholera) and strict anti-malaria discipline was enforced. Drinking water was chlorinated. Suppressive mepacrine treatment was carried out in all stations except the following :—

Kharagpur	Dacca
Diamond Harbour	Comilla
Barasat	Fenni •
Calcutta	Jhikergacha
Khulna	Barrackpore

The health of the troops remained excellent throughout. This was in a large measure due to the attention given to the provision of a full Field Scale Ration and to the preventive measures taken.<sup>9</sup>

#### MEDICAL STORES AND EQUIPMENT

An estimate of the average amount of each drug which would be necessary, was made on the basis of the experience of Calcutta hospitals and drugs were packed in '50 and 100 patient sets'. The composition of the packets was altered in the light of experience and with changing conditions, but the general system remained throughout the same as had originally been planned and was successful.

The organisation of supplies of cholera vaccine, vaccine lymph and bleaching powder was undertaken by the Public Health Commissioner for India and Director of Public Health, Bengal. Supplies of cholera vaccine and bleaching powder were maintained satisfactorily. Supplies and distribution of vaccine lymph, however, were not wholly satisfactory. Breakages in transit by post due to defective packing and delays in postal delivery were frequent. There was a temporary shortage of vaccine late in February and March. This was due partly to misunderstanding regarding the supply position by the local authorities, but mainly to an almost incredible step up of the vaccination drive. This exceeded the most optimistic forecast and supplies

<sup>9</sup> H/6/12/H(M)

of vaccine lymph seemed to melt away as soon as they were received. As many as 2,000,000 doses per week were being despatched at one period. The difficulties regarding supply were, however, soon overcome.

One of the greatest aids in facilitating the speedy supply and distribution of drugs and vaccines was the courier service. Prior to the closing down of this service from 15 April 1944, large stocks of bleaching powder, vaccines and reserves of drugs were built up in the districts by the Surgeon General and the Director of Public Health. In case of an emergency air transport was also utilised. Particular mention must be made of the United States Army Air Force, which gave valuable assistance. On one occasion three DC 35 were made available by the USAAF although only one had been demanded. Help was also readily given by the RAF on many occasions.

#### WITHDRAWAL

To review the Bengal famine relief problem a medical conference was convened at Calcutta from 28 to 31 January 1944. All officers commanding medical units, medical officers in-charge areas and DADsH attended the conference. The final session was attended by the Surgeon General and the Director of Public Health, Bengal.

It was decided to complete the withdrawal of the military medical organisation by 30 April 1944. To ensure a smooth and easy withdrawal, the situation in each individual hospital was studied by senior civil and military officers and arrangements were made for a gradual planned withdrawal.

The military hospitals closed gradually, the last one at Bhola in Bakerganj district closed on 24 April 1944. All mobile treatment centres were also closed by 25 April 1944.

Prior to the complete withdrawal, the opportunity was taken to train certain civil medical officers in military hospitals. By 2 May 1944, the military medical staff left to perform public health duties in connection with the Bengal Famine Relief included one ADH, ten DADsH and fifty six SDHOs.

The task of the Army in connection with the famine relief was thus successfully accomplished. This humanitarian assignment resulted in the saving of thousands of lives and brought hope and relief to millions in Bengal at a time when all hope of succour and recovery had vanished. At first, some were inclined to regard the employment of troops for civil relief work as a serious interruption of their training for war. They, however, soon realised that the restoration of normal conditions in Bengal was an important military task as Bengal formed the military base and main line of communication. It also became obvious that the famine relief work had also very important training value since it provided opportunities to develop initiative and encouraged improvisation.

The following few examples illustrate the extent of the work of the military medical units .—

- (i) A section of one hundred beds of No 42 IGH was required to move to an island to meet a sudden emergency. At 10 00 hours the unit arrived by steamer and barges at the *ghat* and transferred its equipment to fourteen country boats. By 13 00 hours the section had proceeded seven miles up the stream to its destination (two boats sinking on the way) and arriving at 18 00 hours started work immediately. Within twenty-four hours of its arrival the unit had actually admitted eighty patients. During its move from the mainland the section had inoculated and vaccinated 1,086 people.<sup>10</sup>
- (ii) No 28 CCS in twenty weeks treated 133,470 cases, gave 113,822 cholera inoculations and 173,095 small-pox vaccinations. An average number of cases, treated by each officer each day was 44.56 malaria cases, 18.92 other cases, 54.20 cholera inoculation and 82.40 small-pox vaccination.<sup>11</sup>
- (iii) No 9 Light Field Ambulance treated 244,390 cases, inoculated 86,344 and vaccinated 39,979. It visited approximately 2,500 villages and covered a distance of 141,000 miles (excluding the journey from Southern Army to Bengal) and distributed 126,336 pints of milk to nursing mothers and infants.<sup>10</sup>

<sup>10</sup> H/6/12/H(M)

<sup>11</sup> Lieut.-Colonel K. S. Fitch, OBE, FRCS(Ed), IMS. *A Medical History of the Bengal Famine, 1943-44*. Calcutta : Government of India Press

## CHAPTER XIX

# Medical Organisation for Civil Defence in India

The problem of protecting the civil population in the event of war, and of providing adequate medical and surgical treatment in case of injury arising from hostile activity, either by bombing from the air or by any other means, was one which had engaged the attention of the Government of India as far back as 1936. In that year a 'note' was prepared by the Chief of the General Staff and the AOC-in-C, drawing attention to the need for a preliminary examination of the problem.

On 25 August 1937, a committee was appointed to report on the need for air raid precautions (ARP) for the protection of civilians, key industries, and essential Government services in India against gas and bomb attacks, etc. This committee submitted its report on 7 April 1938, and, amongst other items, dwelt on the necessity of instituting ARP schemes for 'First Aid Medical Arrangements'. In consequence of this report a skeleton organisation was set up under the Home Department.

At the outbreak of World War II the organisation consisted of one officer on special duty to advise on ARP. Subsequent appointments were made as under —

Joint secretary	September 1940
Deputy secretary (Officer on special duty)	January 1941
Liaison officer	April 1941

In 1941 a rapid expansion of ARP activities took place, and in August 1941, a separate Civil Defence Department was formed and Dr E Raghavendra Rao, Adviser to the Secretary of State for India, who had first-hand experience of air raid conditions and civil defence in London, was appointed member-in-charge of Civil Defence in the Governor General's Executive Council. He died in June 1942, and was succeeded by Sri J. P. Srivastava.

### MEDICAL ORGANISATION AT THE HEADQUARTERS

Prior to June 1941, knowledge of ARP medical organisation in India was based almost entirely on the publications already issued in the United Kingdom. These publications were not always applicable to the conditions in India with her great size, congested centres of population and entirely different climatic conditions. With the continued expansion of ARP activities in general, and the hospital and casualty services in particular, cases referred to DGIMS were so frequent that it became necessary, in June 1941, to create an appointment of a DADGIMS (ARP) in his office to deal with such cases. In May 1942, owing to the increase in work the appointment of DADGIMS (ARP) was upgraded to that of an ADGIMS and an



additional appointment of DADGIMS (ARP Stores) was created to take over the duties in connection with the central reserve of medical stores. Soon after, in July 1942, another DADGIMS (ARP) was sanctioned to assist the ADGIMS (ARP) and to enable him to undertake tours of provinces and states and give assistance and advise on the spot.

By July 1943, the amount of work in the ARP section of the office of DGIMS had been considerably reduced, especially with regard to the central reserve of ARP medical equipment. The post of DADGIMS (ARP Stores) was, therefore, kept vacant though not surrendered.

#### CONFERENCE OF PROVINCIAL AMOS IN JULY 1941

Advantage was also taken of the conference of provincial AMOs, which was being held on 21 July 1941 in Simla, to discuss the following problems and give special consideration to the medical side of the ARP organisation.

- (i) General organisation and administration co-ordination between the Government of India and the Provincial Governments
- (ii) Evacuation and treatment of casualties.
- (iii) Casualty receiving hospitals
- (iv) Base hospitals.
- (v) Provision of medical staff for the ARP organisation.
- (vi) Medical stores for ARP.
- (vii) Training of medical officers in the treatment of gas casualties.
- (viii) Blood transfusion scheme.
- (ix) Arrangements for the safe deposit of radium.
- (x) Recording and notification of casualties

Another conference was also held from 17 to 25 August 1942, to discuss the various problems in connection with the medical aspects of ARP.

#### THE CIVIL DEFENCE POLICY

The appreciation of the air threat to India was a responsibility of the General Staff. In 1943, India was divided into the following three areas, according to the vulnerability :—

- (i) *the preliminary warning areas* that is the area within reach or likely to be within the reach of hostile aircraft ;
- (ii) *the threatened areas* that is the area which, if things went badly, might come within the reach of hostile aircraft.
- (iii) *The rest of India* —The possibility of a serious threat to India first developed against the north-west of India when German Armies had temporarily triumphed in Western Europe in the summer of 1940, and it seemed only a matter of time before they would turn

eastward. At the same time it was feared that Japan would enter the war as soon as it suited her to do so, and probably without warning. In view of the above considerations certain parts of India were declared to be 'threatened' areas. The entry of Japan into the war in December 1941, altered the balance of the threat and in consequence the area in the east of India, together with a hundred mile wide coastal belt around the whole coast except the part north of Bombay, was declared a 'preliminary warning' area. During 1942, several changes were made in the 'threatened' and 'preliminary warning' areas, but they were comparatively minor in character, and the main areas considered to be in danger remained unchanged.

By February 1943, the whole aspect of the war in the east had altered. Successive defeats of the German Armies in Russia and the Italian troops in North Africa had reduced the threat to the north-west. The whole question of the civil defence policy was, therefore, revised, and a new policy based on the following division of India was put into operation —

- (i) *Red Area* where the threat was judged to be the greatest
- (ii) *Pink Area* where the threat was judged to be less
- (iii) *White Area* where the threat was judged to be slight

In addition certain 'Black Spots' or definite target areas were specified within the 'Red Areas'. The ARP policy varied according to the civil defence classification of the area concerned but may be briefly summarised as follows —

- (i) *Black spots* where the number of static and mobile first aid posts was to be increased, ambulance services were to be maintained and medical staffs in hospital services were to be retained at the civil defence scale (9 doctors per 200 beds)
- (ii) *Red Area* where first aid posts and ambulance services were to be maintained and medical staffs in hospital services were to be on a scale of 2 beds per 1,000 of population
- (iii) *Pink and White Areas* where as many static first aid posts as possible were to be replaced by mobile first aid posts, all buildings except hospitals or regular dispensaries were to be released. Vehicles were to be reduced in number in ambulance services, paper schemes were to be perfected for hospital services and medical staff in excess of the regular hospital staff was to be earmarked.

A further and important consequence of the new policy was the closing down of the Civil Defence Department with effect from 7 September 1943, from which date the work on civil defence was carried out by the Civil Defence Branch in the Defence Department.

In November 1943, the general question of civil defence policy in India was again reviewed, and it was decided that in view of the lessening threat from the air raids the 'red area' should be considerably reduced. It was further agreed that the only serious threat

which remained was to the Provinces of Assam, and Bengal and that part of the Provinces of Bihar and Orissa which was east of 86° longitude together with the town of Cuttack and an area of twenty-five miles round certain important ports. The 'Pink Area' was abolished and the whole of the remainder of India was declared a 'White Area'. The policy in the newly defined 'Red Area' remained approximately the same as was decided in February 1943. It was also decided that all ARP schemes in the 'White Area' should be closed down and only 'paper' schemes kept in operation.

In November 1944, the threat to India had become still less and a considerable reduction of the 'Red Area' took place. The whole of India was declared to be 'White Area' in May 1945, and the ARP section of the office of the DGIMS closed on 31 August 1945

#### CASUALTIES RESULTING FROM AIR RAIDS IN INDIA

In India the first four small raids were made on 6 April 1942, on Vizagapatam. Eight persons were killed and fourteen injured. On the same day there was a very light raid on Coconada. These were followed by two heavier raids, one on Chittagong on 8 May, in which 126 people were killed and 83 injured, and one on Imphal on 10 May, in which 100 people were killed and 80 injured. After that, air raids took place spasmodically at intervals of up to six months. On the whole the raids were comparatively light and casualties not excessive, but on a few occasions the number of casualties was considerable as in the following instances —

<i>Town</i>	<i>Killed</i>	<i>Injured</i>
8 May 1942—Chittagong	126	83
10 May 1942—Imphal	100	80
5 December 1943—Calcutta	441	738

In all there were 3,521 casualties, of which 1,432 were killed, and 2,089 wounded. Bengal suffered the greatest number of casualties where 1,049 were killed and 1,698 injured. In Assam 371 were killed and 343 injured and in Madras 12 were killed and 43 injured. No other province had any air raid casualties. It will be noted that the proportion of killed to the injured is in the ratio of about 2 . 3 which approximates to the comparable proportion in the other theatres of war.

#### ASSISIANCE AND TECHNICAL ADVICE TO THE PROVINCES AND STATES

Advice to the provinces and states on ARP was one of the earliest civil defence measures to be adopted by the Home Department of the Government of India. In November 1940, the first of the series of pamphlets, Handbook No 1, *General Principles of Air Raid Precaution in India* was published. The medical arrangements advised in this handbook dealt with the enrolment, organisation

and training of first aid parties, very simple ambulance arrangements and the organisation of first aid posts. A list of necessary stores and equipment to be maintained at the first aid posts and with the first aid parties was also given.

After the appointment of the DADGIMS (ARP) in June 1941, further instructions were issued to the provinces and states.

In June 1942, a second revised edition of Air Raid Precaution Handbook No. 1 was published which was more comprehensive than the original handbook and dealt with the following subjects —

- (i) General organisation of casualty services
- (ii) Hospital organisation
- (iii) Ambulance services
- (iv) Control, composition, number, and equipment of and depots for first aid parties
- (v) Control, functions, spacing, size, layout, personnel, medical equipment and stores and personal equipment of the staffs of first aid posts
- (vi) Mobile first aid posts
- (vii) Local reserves of medical equipment
- (viii) Central reserves of medical equipment
- (ix) Records of air raid casualties

Complete scales of equipment for all the units mentioned above, and for the medical portion of the equipment of other ARP services, were laid down in the appendices to the handbook.

#### ORGANISATION OF FIRST AID POSTS SITUATED AT OR ADJACENT TO THE HOSPITALS

In September 1941, the Government of India recommended to the Provincial Governments that first aid posts should be attached to hospitals wherever possible, and that the casualty department of a hospital (where it existed) should be used as a first aid post. Where this was not possible, the first aid post should be lodged in an adjacent building. It was pointed out that such an arrangement, while maintaining the functions of the post as a screen to the hospital against an abnormal influx of lightly injured persons, would facilitate, with the least possible delay, the admission to the hospital of cases requiring treatment as in patients. The 'post' would also combine in some degree the functions of a reception and sorting department for the hospital. It had the added advantage that the resources of the hospital personnel and equipment would be available if necessary for the support of the 'post'. In October 1941, recommendations for the establishment of a cleansing section of the first aid post were issued and authorised personnel and scales of equipment were laid down. By January 1943, 657 station first aid posts had been completely equipped and staffed.

## PROVISION OF MOBILE FIRST AID POSTS

In November 1941, it was suggested to the provinces that in the less densely populated and poorly developed areas static first aid posts might be replaced by mobile first aid posts which could be used to set up an aid post as and where required. Experience in England had shown that mobile first aid posts could often be used instead of static aid posts in suburban areas and that even in the thickly populated areas they were likely to prove a useful replacement or reinforcement of static aid posts which might be destroyed or overwhelmed by a large number of casualties. It was further suggested that the provincial governments might consider the proposals in the light of local conditions, particularly in the big cities. It was made clear that mobile first aid posts should not be in addition to the static ones already sited but should replace certain of the latter according to local conditions. In some cases a mobile first aid post could perhaps replace as many as two or three static posts. Plans of a mobile first aid post were circulated, together with the scales of equipment and suggestions for its use and functions. It was suggested that the mobile post should consist of a motor vehicle, such as a big truck or Ford van, suitably equipped and staffed. It was not intended that first aid be carried out inside the vehicle. The function of the mobile post was partly to enable a complete first aid medical unit to proceed to the scene of major air raid damage, and partly to reinforce the static posts. By January 1943, 143 mobile first aid posts and 838 regular and improvised ambulances had been completely equipped and staffed.

ASSISTANCE AND TECHNICAL ADVICE TO CERTAIN DEPARTMENTS OF THE  
GOVERNMENT OF INDIA

In addition to the provinces and states, technical advice and assistance were also given to certain departments of the Government of India by the ARP section. The section always worked in the closest collaboration with the Civil Defence Department. Assistance was given to the department by preparing the medical sections of the following publications :—

- (i) *ARP Training Manual No. 1* (India) January 1943 (Individual training, first stage)
- (ii) *ARP Training Manual No. 2* (India) November 1942 (Manual for officers responsible for ARP training)
- (iii) *ARP Training Manual No. 1* (India) (*Gas Supplement*) (War gases and personal protection against gas).

A series of ARP medical manuals and memoranda was also prepared in the office of the DGIMS and published by the Civil Defence Department. Most of the eventualities of a medical nature likely to arise as the result of hostile air activities were discussed in them. There was also close co-operation with the Structural Precautions

Officer in the preparation of ARP Handbook No 8 (*Structural Precautions against air raid risks in hospitals* Second Edition revised December 1942) Technical advice was frequently given to the civil defence training schools, and a special directive (notes on the functions and organisation of first aid posts) was prepared in August 1942, for the civil defence specialist officers training course at Lahore

Various forms in connection with the war injuries scheme and regulations, 1942, were formulated in consultation with the Department of Labour Advice was also given on the medical aspects of ARP in factories In particular, suitable scales of equipment for use in the factories were drawn up and detailed specifications of certain special items of equipment, such as splints, were supplied Assistance was given to the factories in building up their central reserves of medical equipment and stores Advice was also given to the Railway Board and Port Trusts on all medical aspects of ARP

In addition to the above, every possible assistance was also given to various non governmental organisations, in particular to the St John Ambulance Association (Indian Council) in connection with the ARP

#### APPORTIONMENT OF FUNCTIONS OF CENTRAL AND PROVINCIAL ADMINISTRATION AND ORGANISATION

The medical organisation of civil defence was on a provincial basis The function of the Government of India was confined only to the giving of advice and assistance, financial and otherwise The general policy was to issue schemes and instructions with a view to enabling the provinces to proceed on uniform lines In certain provinces the whole of the medical organisation followed strictly the principle that the responsibility for the whole of the medical services should be placed with the department which administered those services in peace-time In other provinces, however, notably Bombay, Madras and the United Provinces, the casualty services were under the ARP Controller, and the hospital services under the AMO This was felt to be unsatisfactory and the general policy of unification of the two organisations was discussed and emphasised at the meeting of the provincial AMOs held at Delhi in September 1942

In peace time provinces generally had the government, local bodies (municipal and district board), mission, private and railway hospitals The provincial AMOs controlled their respective medical service and the Government hospitals Other hospitals were administered by their own governing bodies All the types of hospitals mentioned above were to participate in the emergency hospital scheme and were required to admit and give treatment to air raid casualties

Certain precautions were necessary in estimating the number of beds which might be provided for ARP purposes from two types of government hospitals, *viz.*, the infectious diseases hospitals and the mental hospitals It was envisaged that in the event of the outbreak

of epidemics there might be a considerable strain on the accommodation in the infectious diseases hospitals in the area and, therefore, these should not be used for ARP purposes if this could be avoided. On the other hand, some of the mental hospitals which were situated in the periphery of the town could be utilised as base hospitals by discharging some of the milder cases to the care of their friends. The general principles for providing beds in the casualty receiving and base hospitals, were as follows :—

- (i) To free part of the normal accommodation in the civil hospitals by discharging the milder cases and transferring a proportion of the milder cases to the hospitals outside the danger area
- (ii) To increase bed capacity in existing hospitals by putting extra beds in the wards, and also by providing emergency beds in the verandhas etc
- (iii) To convert suitable buildings into emergency ARP hospitals

It was realised that the usefulness of a hospital for dealing with air raid casualties did not depend solely upon the number of beds which could be provided but also, to a greater extent, on the number of complete surgical teams which could be made available and the number of adequate operating theatres and surgical equipment in existence for their use. The standard to be adopted in assessing the capacity of a hospital for dealing with air raid casualties was the number of cases it could deal with during a given period. Provinces were asked to submit reports showing how many beds could be provided on the following basis :—

- (i) Within twenty-four hours by immediate discharge of minor cases or by the transference of some cases to the base hospitals
- (ii) Within a week by putting extra beds in the wards and verandhas of the existing hospitals additional to (i)
- (iii) Within a month by taking over and equipping buildings already earmarked as emergency hospitals additional to (i) and (ii) -

Schemes were accordingly prepared by the provinces and forwarded to the Government of India for approval. Also, in order to furnish a comprehensive picture of the hospital services in India as a whole, provincial AMOs were asked to furnish monthly statements of ARP beds in certain important towns, and a quarterly statement for the whole province, in accordance with the classification already described, together with the particulars of medical and nursing staffs

#### EXTRA BEDS FOR THE TREATMENT OF AIR RAID CASUALTIES

The normal number of hospital beds in the towns in British India classified for ARP purposes was 49,731. It was, therefore, apparent that there would have to be considerable expansion in order to ensure that every possible emergency would be catered for. The existing number of beds in the threatened areas was quite inadequate

to meet the situation if heavy raids should take place. In arriving at a decision regarding the number of additional beds required the corresponding figures in the United Kingdom were carefully considered in the light of conditions likely to arise in India. The beds for casualties provided in the United Kingdom in 1939, were in the ratio of 1 to 273<sup>1</sup> of the population. In December the ratio of beds completely staffed and equipped in the United Kingdom was 1 to 431 of the population. Taking all factors into consideration it was considered that in India it would be reasonable if beds at the scale of 1 to 500-750 of the population in the towns classified for ARP purposes were provided. The basis on which the provision of beds was made differed according to the vulnerability and the importance, both military and industrial, of the town or area concerned. Classification of the towns in India on this basis had already been carried out, and all classified towns placed into categories I, II, or III according to their vulnerability. It was proposed that the number of hospital beds in these towns should be increased to bring them up to the above proportions and that these should be allocated in two broad groups, the casualty receiving hospitals in vulnerable areas and the base hospitals in safer areas.

In January 1942, the possibility of accommodating surplus air raid casualties from Bengal or Madras in towns in other provinces was also explored. The expenses of this scheme were ultimately to be borne by the province sending out the casualties for treatment. It was suggested that Rs 1-4-0 to Rs 1 8 0 per day per bed for air raid casualties during periods when the beds were occupied and As 0-12-0 per day when empty should be adequate as a maintenance cost. The rates were not acceptable to the Government of Bombay, in whose case it was agreed that the rate to be adopted should be worked out when the scheme was actually put into effect. It was provisionally agreed to provide the following additional beds in the Central Provinces under the scheme —

	<i>Beds</i>
(i) Mayo Hospital, Nagpur	600
(ii) Victoria Hospital, Jubbulpore	300
(iii) Silver Jubilee Hospital, Raipur	300
(iv) Irwin Hospital, Amraoti	300
(v) Main Hospital, Bilaspur	100
(vi) Main Hospital, Wardha	50
(vii) Emergency Hospital, Akola	100
(viii) Emergency Hospital, Bhandwa	100
(ix) Emergency Hospital, Bhandara	50
(x) Emergency Hospital, Katni	50
<b>Total</b>	<hr/> 1,950

Later it was decided that the beds should be apportioned and definitely earmarked among the different provincial governments who expected

<sup>1</sup> Report of the Ministry of Health in the United Kingdom—1 April 1939 to 31 March 1941



to use them eventually, and that the total number of beds maintained should be reduced to the number definitely earmarked for the provincial governments plus such a number as might be required by the military authorities. The proportionate charge on beds, if any, earmarked for the Defence Services was to be debited to the Defence Estimates.

The provinces of Bengal, Bihar, Orissa, Madras and Central Provinces and the War Department were at the same time requested to report immediately to the Civil Defence Department of the Government of India the number of beds likely to be required on these terms. On 25 September 1943, the Bengal Government intimated that they desired to reserve 1,000 beds in the Central Provinces for the treatment of possible air raid casualties from Bengal. Eventually 900 beds were actually reserved, 600 in Nagpur and 300 in Jubbulpore. In February 1944, 200 beds for air raid casualties from Bengal were reserved in Patna since it was nearer than the two towns in the Central Provinces and was also the station of the civil defence ambulance train. The beds in Jubbulpore were consequently relinquished. As the threat to India lessened it soon became apparent that even these remaining beds were no longer necessary and this part of the civil defence organisation was, therefore, abandoned in April 1944.

#### FINANCIAL RESPONSIBILITY FOR ARP HOSPITALS

The cost of providing hospital facilities for the treatment of air raid casualties was treated in the same way as other ARP measures and was included in the general ARP expenditure of the various provinces. At the outbreak of war, to encourage speedy action, the Government of India bore the whole cost, with the result that its financial burden rapidly increased and it became necessary to reconsider the matter. It was finally decided that responsibility for action lay with the provincial governments although the Government of India was prepared to assist with guidance and financial help. Certain difficulties arose in the case of railway hospitals. It was suggested that reciprocal arrangements should be made between the government and the railway hospitals so far as the treatment of air raid casualties was concerned. In Karachi in September 1942, it was considered that the railway hospital should be enlarged for the reception of possible air raid casualties, but a difference of opinion arose between the Railway Board and the Provincial Government as to who should be responsible for the cost of the additional hospital accommodation. The matter was ultimately clarified by the Government of India which laid down that where railway hospitals were enlarged for the reception of air raid casualties as part of a general ARP scheme, the cost should be borne by the Provincial Government, the principle involved being that employees and travellers on the railways paid the same taxes as other persons and as such were entitled to a similar and equal consideration.

In June 1941, the Government of India after full discussion with the provincial governments agreed to bear 50 per cent of the first crore of rupees spent on the civil defence measures in each province, plus 75 per cent of the amount spent in excess of that sum. This arrangement led to difficulties and delay and at a financial conference of the provincial representatives held in January 1942, a new arrangement was agreed upon. The main features of this arrangement were the full acceptance of responsibility for action by the provinces, and the institution of a 'slab' system for pooling expenditure. From that date each province bore the whole of the first 'slab' of expenditure in the province in each year, which was approximately 4 per cent of the income of the Provincial Government. The next 'slab' of the same size was borne, 50 per cent by the provincial government and 50 per cent by the Government of India, and the next equivalent 'slab', 25 per cent by the provincial government and 75 per cent by the Government of India. Beyond this 12.5 per cent was borne by the provincial government and 87.5 per cent by the Government of India. In this way the Government of India remained as an advisory and co-ordinating body but individual schemes could be dealt with by the financial authorities of the provinces. In February 1943, this position was further modified after reconsideration of the degree of risk from air attack in various parts of India, and the ARP programme in certain parts was considerably reduced in view of the lessening of the threat from the air. It was also decided that only such expenditure would be pooled as coincided with that policy. Provinces were asked to review their ARP policies and to submit their proposals together with a note of the expenditure.

#### ESTIMATED COST OF EQUIPPING AND MAINTAINING ARP HOSPITAL BEDS

The cost of providing, equipping and maintaining hospital beds for air raid casualties of necessity, varied within wide limits according to the area in which the beds were to be provided, and also according to the facilities already in existence. It was generally less costly to provide extra beds by utilising space in the existing hospitals than by converting a building originally intended for other purposes into an emergency hospital. After some experience as to the cost of providing and equipping additional beds had been gained in certain provinces, notably Bengal, the following suggested scale of payment was laid down by DGIMS —

##### (i) Initial cost per bed

- (a) When the beds were provided in the existing hospital buildings—Rs 45 to Rs 60
- (b) When the beds were provided in other than hospital buildings—Rs 60 to Rs 65

##### (ii) Maintenance cost per bed

- (a) When the beds were occupied—Rs 140 to Rs 180 per day
- (b) When the beds were unoccupied—Rs 0.120 per day

##### (iii) Cost per out patient

Rs 0.60 to Rs 0.80 per day

## EQUIPMENT FOR HOSPITALS

No scale of medical and surgical equipment for hospitals was laid down, as it was virtually impossible to do so owing to the fact that the standard of equipment in the existing hospitals varied within very wide limits. Many large general hospitals did not require any extra surgical equipment to deal with air raid casualties except perhaps a certain quantity of splints, suture and ligature material, and certain types of equipment to enable them to deal with complicated fracture cases. It was, therefore, left to the provinces to take whatever steps they deemed necessary in this connection by local purchase of necessary equipment. Assistance was, however, given by DGIMS through the medical stores depots wherever it was possible to meet the provincial demands. Responsibility for medical and surgical stores of individual hospitals was allowed to remain with the hospital authorities or the governing body. Accordingly they continued to arrange their own purchases in the normal way. In order to meet the possible large demands for drugs and dressings, it was suggested that every hospital should hold such reserves as it could conveniently store and turn over and should try to keep in reserve at least one month's supply calculated on the assumption that the hospital had all its beds occupied. To assist officers responsible for the organisation and equipment of emergency hospitals, a suggested scale of equipment was also prepared

## STAFF ARP HOSPITALS

It was obvious from the beginning that a large number of additional medical officers and nurses would be required in order to staff the hospitals for ARP purposes, and the provincial AMOs were made responsible for the recruitment of this extra staff. As regards medical officers, they were in all cases employed on a purely provincial basis. Some provinces employed these both on a full-time and part-time basis, and others earmarked a certain number for duty in the event of an emergency. Rates of pay varied in different provinces and were generally based on the rates of provincial medical services, e.g., Assam in 1942, paid Rs. 75/- to Rs. 100/- per month for full-time graduates while Bengal paid Rs. 75/- to Rs. 250/-. In Madras an attempt was made to ensure that certain specialists attached to the local hospitals would remain in the city in the event of an emergency by paying them a retaining fee of Rs. 150/- to Rs. 250/- per month. A retaining fee of this nature was not paid in Bengal but rates of pay varying from Rs. 350/- to Rs. 500/- per month were sanctioned for specialists employed during an emergency.

In January 1943, there were approximately 48,400 beds for air raid casualties in India. It was suggested by DGIMS that nine medical officers were required for staffing a unit of 200 beds. Of these there could be 3 graduates and 6 licentiates. On the above basis 2,180 medical officers (727 graduates and 1,453 licentiates) were required.

In addition to the above, adequate arrangements were necessary for part time visiting surgeons, physicians and anaesthetists. The actual number of medical officers employed for staffing the ARP hospital beds in January 1943, was 1,487, which included 1,065 paid full-time, 94 paid part-time, 59 voluntary full time and 269 voluntary part-time.

The situation with regard to the nursing staff for ARP hospital beds was very precarious. It was difficult to estimate exactly the number of nurses available for duty in the casualty receiving hospitals. A certain number of nurses were employed on normal peace time duties and were available in the event of casualties resulting from air raids. A rough estimate of the total number of nurses required was, however, prepared in the office of the DGIMS in November 1942. It was estimated that every hospital unit of 100 beds would require 2 trained nurses and 10 members of the ANS(I). A total of 900 trained nurses and 4,500 members of the ANS(I) were thus required. The total number of nurses trained under the ANS(I) training scheme for local service up to May 1943, was 261 only, which was a mere fraction of the total number required to staff the ARP hospitals adequately.

#### STRUCTURAL PRECAUTIONS AGAINST AIR RAID RISKS IN HOSPITALS

Structural precautions to provide protections against air raid risks in the hospital depended not only on its individual features, but also on the degree of risk which it might be expected to incur. The importance of light and air to recovery from injury or disease had also to be taken into account. Where the threat of raids was very slight the preservation of light and air justified the omission of all structural precautions which would materially reduce these. As the threat increased some reduction in light and air was justified up to the point of full structural precautions in intensely dangerous places. A further factor for consideration was the proximity of large factories, especially ammunition works, important railway junctions and densely populated areas, and the likelihood of these being targets for attack. It was for the provincial governments to decide what degree of protection was called for in the particular circumstances. In very vulnerable situations it was necessary to give splinter and blast protection to 50 per cent or more of the wards by methods such as the construction of suitable protective walls or the removal of glass from the windows and doors. This, in the case of multi storeyed buildings, meant 100 per cent of the ground floor rooms. For less vulnerable situations such protection for 15-25 per cent of the wards was sufficient. In addition to the protection of wards, it was important to give suitable protection to the operating theatres, X ray and other valuable equipment, dispensaries, main pathological laboratories, medical stores, food stores and kitchens. Other precautions included the provision of stand by lighting sets, a supplementary water supply adequate for fire fighting and domestic purposes and the provision and maintenance of stirrup pumps and the training of stirrup pump parties.

## INITIAL PROVINCIAL ARP MEDICAL AND SURGICAL EQUIPMENT

Although certain general suggestions and scales of equipment, based on those in operation in the United Kingdom, had been included in the *ARP Handbook No. 1*, it was not till September 1941, that any active steps were taken to ensure that adequate supplies of medical and surgical equipment should be available in the provinces for the treatment of possible air raid casualties. In that month standard scales of equipment for casualty services were laid down by the Government of India. The provincial governments and the chief commissioners were informed that in future supplies of medical stores, drugs, dressings and appliances should not be purchased locally, but that indents should be placed on the medical stores depots through the Home Department of the Government of India. They were also informed that a reserve of medical stores and equipment should be held by them to replenish the stocks used by the various casualty organisation units. The reserves were to be divided into first line and second line reserves, 50 per cent. being allotted to each. First line reserves were to be held after the preliminary warning in selected first aid posts for immediate replenishment of the first aid posts, first aid boxes and haversacks ; second line reserves were to be held in selected hospitals serving a group of first aid posts.

Following the entry of Japan into the war in December 1941, the position in certain provinces vulnerable to air raids was so unsatisfactory that it became necessary to adopt, as a matter of urgency, some measures to speed up the equipping of the provincial civil defence organisations. Accordingly the provinces of Bengal, Assam, Bihar, Madras, Bombay and Orissa were informed that they could place indents, in an emergency, for initial equipment directly on the medical stores depots, in accordance with the scales already laid down in September 1941. Further, in extreme necessity, they were authorised to purchase equipment locally. In April 1942, it was decided that initial ARP equipment, particularly for casualty services, in all the provinces was entirely the responsibility of the provinces themselves and that when the quantities required were not unduly large they should be obtained by local purchase. Assistance in local purchase was afforded through the medical stores depots of Calcutta, Madras and Bombay, which were asked to put the provinces in touch with the best and cheapest sources of supply. Where the quantities of indigenous stores required for initial equipment were large it was suggested that the purchase should be made through the DGIMS, Central Purchase Organisation, by means of consolidated indents covering the requirements up to the end of 1942 and for 1943. It was pointed out that a reasonable time limit must be allowed for the procurement of medical stores after firm demands had been placed. This time-limit was likely to be approximately six months in the case of indigenous stores and twelve to eighteen months in the case of imported items.

## CENTRAL RESERVE OF ARP MEDICAL STORES

Anticipating further difficulty in the procurement of medical and surgical equipment for ARP in an emergency, a scheme for a central reserve of ARP medical stores both for the casualty receiving hospitals and for the casualty services was prepared early in 1942, and the provinces were notified of the proposal in April of that year. The purpose of the central reserve was not to provide initial equipment but to meet the most urgent demands from the heavily raided areas, and to replenish provincial stocks after such raids. The reserve was calculated on the basis of provision for 10,000 hospital beds, and 45,000 casualties. It was estimated that at worst there might be 20,000 casualties per month, out of which 7,000 might probably be killed and a further 3,000 might not require hospital accommodation. In view of the probable difficulty that the provinces were likely to have in obtaining items of medical equipment for the casualty services when their own reserves were exhausted, it was also decided to build up a central reserve which was estimated on the basis of 15,000 casualties per month. On the assumption that the intensity of the attack might last for three months and since at least the same period was required to procure indigenous stocks, total provision was made for 45,000 casualties. In addition to these estimates a 100 per cent reserve was maintained for expendable articles such as drugs and dressings, and also certain reserves for non expendable articles such as syringes, needles, etc., to provide replacement due to breakage or loss. In order to cover the cost of medical stores on the basis outlined above, a sum of eighteen lakhs of rupees was sanctioned by the Government of India.

## KARNAL ARP MEDICAL STORES DEPOT

In order to house central reserve medical stores, a new depot was opened at Karnal in May 1942. The Karnal Depot, being an integral part of the government medical stores depot organisation, was under the administrative control of DGIMS. This facilitated smooth working and staffing, as experienced depot personnel were made available from other depots to provide a nucleus staff. A manager of the IMD cadre was in charge of the depot with staff of thirty eight persons to assist him.

## RAIPUR DEPOT

In May 1943, about 25 per cent of the ARP central reserve stock was transferred from Karnal to the Medical Stores Depot, Raipur, firstly because the provision of accommodation at Karnal was becoming inadequate as stocks increased, and secondly in order that a certain proportion of the stocks might be nearer the threatened areas and, therefore, more easily available in case of urgent necessity. For this reason efforts were also made to ensure that stocks transferred

should be proportionately representative of the whole of the stock held at Karnal and likely to be required in an emergency.

#### STOCK POSITION OF THE ARP CENTRAL RESERVE IN MARCH 1943

The stock position of the ARP central reserve made steady progress, in spite of many difficulties connected with the shortage of supply. On 25 March 1943, the position was that out of 179 items demanded in the original indent, 115 had been received, some in part others completely. In terms of percentage under two main headings the stores received were instruments and appliances—55·6 per cent. and drugs and dressings—56·3 per cent. Following the revised ARP policy of the Civil Defence Department in February 1943, about thirty items of non-expendible articles such as surgical instruments and appliances had been removed from the list of outstanding items. It was also decided that the quantities of certain other items received up-to-date would be sufficient to meet the requirements of the newly defined 'Red Area' and demands for the remainder of these items were, therefore, also cancelled.

#### ARP MEDICAL STORES UNDER LEASE/LEND

Early in January 1942, a communication was received from the Secretary of State for India asking for estimates of India's requirements for 1942 and 1943 of certain medical stores which were to be procured from the United States of America under lease/lend agreements. The Export/Import Branch of the Supply Department accordingly estimated ARP requirements for the whole of India on the population basis, taking the requirements of Bengal and Bombay as a guide for their calculations. These estimates were communicated to the Secretary of State in February 1942. Stores indented for ARP (India) on receipt formed part of the government civil stores and were stocked in the first instance at the receiving Medical Stores Depots. Allotment of this stock was made to each province according to its requirements.

#### ARP DRESSINGS

Early in 1942, the Civil Defence Department was asked by certain provincial governments and departments of the Government of India to supply shell and first field dressings for their ARP casualty organisations. As the dressings were required exclusively for civilian use, it was considered that suitable modifications might be made in the specifications of both types of dressings without loss of efficiency. Some of the imported or costly items in the shell and first field dressings, such as safety pins, water proof covers, acriflavin, and *khaki* dye on the outer cover and bandages were, therefore, omitted and new specifications were drawn up and circulated to the provinces. In order to prevent confusion the new dressings were

called ARP dressing large, and ARP dressing small, and for convenience of distribution these were packed in cases, each containing 300 and 200 dressings respectively. Orders were placed through the Central Purchase Organisation of DGIMS for the initial stocks of 25,000 large and the same number of small dressings for distribution to the Labour Department for factories, Railway Board for State owned railways, centrally administered areas, certain provinces and states. Arrangements were also made for the provision of 100,000 of each type of ARP dressings for the central reserve. In addition, sufficient textile material was also available from the stocks at Karnal for the manufacture of ARP dressings at short notice.

#### CENTRAL RESERVE OF THE ARP MEDICAL STORES FOR THE LABOUR DEPARTMENT

In August 1942, the Labour Department decided to build up a central reserve of medical stores and equipment to meet emergency demands, and to replenish the stocks of the ARP casualty services in factories which were a Labour Department responsibility. The number of casualty service units which the reserve was intended to cover was approximately 1,000 first aid centres, 1,315 first aid parties, 1,315 rescue parties and 1,000 wardens' posts. The number of units of each service was calculated on the basis of the average number of workers employed in a factory, and the quantity of stores for each unit was based on the scale of equipment laid down by the ADGIMS (ARP). The estimated cost of the Labour Department central reserve of ARP stores was about one lakh and eighty thousand of rupees. Factories established their own local reserves for immediate replenishment. It was arranged that when they started drawing on their local reserves, they would approach the Labour Department for replacements, which would be made from the central reserve. The central reserve was stocked both at Karnal and at other medical stores depots at Lahore, Bombay, Calcutta and Madras. The stock, in common with other ARP reserves, was by the government, but indenting factories were to pay for their requirements on issue. The total number of items for this central reserve as shown in the original indent was forty-eight.

#### RE-DISTRIBUTION OF ARP MEDICAL EQUIPMENT FOLLOWING THE REVISED CIVIL DEFENCE POLICY OF FEBRUARY 1943

In March 1943, all provincial governments were informed that the Government of India considered it necessary that a review of all items of ARP equipment should be undertaken. Information was required regarding the quantities of any items falling short of, or surplus to, requirements. In order further to co-ordinate provincial action resulting from the new policy, a conference of provincial representatives was held at Delhi on 13 April 1943. The general principle "that everything possible should be got to where it could be used in the war effort, rather than being kept out of use for the problematical future advantage of any particular organisation",



was agreed to at this conference. The Government of India thereafter informed the provincial governments in the 'Pink' and 'White' areas that the entire existing stock of ARP medical equipment in their possession should be regarded as available for the following purposes in the same order of priority :—

- (i) Equipment required for the 'red areas'.
- (ii) Equipment required for the provision of beds in civil hospitals for military cases
- (iii) Equipment for ordinary current requirements of civil hospitals and dispensaries
- (iv) Equipment to be retained against possible changes in the war situation.

Steps were taken to arrange for the distribution of items that had been declared surplus in the stocks of Punjab, Bombay and North Western Frontier Province to the other provinces requiring them. Transfer of certain stocks under this scheme was made to Assam, Bengal and Orissa during the months of August and September 1943. In the case of Bihar certain areas were adjudged to be not in the danger zone and the only places in which precautions were to continue according to the accepted scales were Jamshedpur, Jamalpur, Ranchi and the Jharia coalfield area.

#### CIVIL DEFENCE DEPARTMENT HOSPITAL TRAIN

In June 1942, the Civil Defence Department took steps to provide a broad gauge hospital train for the evacuation of civilian casualties from the blitzed areas in case of necessity. The train consisted of twelve bogies with a total accommodation for 112 male and 90 female patients. Accommodation for a dispensary and medical and surgical stores and vegetarian and non-vegetarian kitchens was also provided. Each coach has a separate tank for drinking water, lavatories and a shower bath, and a specially designed 'wash' for bed-pans. Electric lights and fans were fixed in each coach and were centrally controlled from a switchboard at the end of the coach. The train was constructed at the East Indian Railway Workshops at Lucknow and was ready for use in July 1943. The cost of the train was about Rs. 3,50,000 and the initial cost of medical stores and equipment about Rs. 19,000. Reciprocal arrangements were made with the military authorities by which the Civil Defence Department could use military ambulance trains in case of urgent necessity and *vice versa*. The following nucleus staff, until such time as the train was put into active commission, was provided :—

Medical officer (major)	1
Store-keeper cum dispenser	1
Male nurses	2
Ward servants	2
Sweeper	1
Additional personnel	22

(When the train was in actual use)

Equipment for the train was supplied from the MGO's Branch and from the Civil Defence Department central reserve as far as possible. Remaining items were obtained by local purchase. When not actually in use the train was stationed at Patna, where it could be readily available in an emergency, but was sufficiently distant to be in a position of comparative safety when not in active use. There was no occasion to use the train for air raid casualties. It was therefore loaned to the military authorities for the transport of military casualties, and in that capacity it had travelled a distance of about 30,000 miles. The train was finally handed over to the War Department completely in February 1945.

#### THE TRAINING OF MEDICAL PERSONNEL IN THE TREATMENT OF GAS CASUALTIES

The general policy of the Government of India with regard to anti-gas measures was to provide only a nucleus of trained personnel, and to store in bulk certain equipment ready for distribution if required. Since August 1942, anti-gas preparations had been restricted to certain towns in Assam, Bengal and Bihar. The training of medical officers in the treatment of gas casualties was included in the gas policy in February 1942, and a course of instruction was held at Poona in April and May of that year. A second course was held during the following October. In all, twenty-four medical officers were trained at these courses. In May 1942, it was decided that civil surgeons and medical officers of large hospitals in the provinces of Assam, Bengal and Bihar should acquire some knowledge of the medical treatment of gas casualties. It was, therefore, recommended to the governments of these provinces that they should institute courses of instruction to be conducted by the medical officers who had already been trained in Poona. In certain 'gas target' towns, special instructions were issued for the training of the following personnel —

- (i) medical officer in charge of first aid post,
- (ii) cleansing section staff of first aid post with gas cleansing section plus all reserves,
- (iii) officers in charge of casualty organisation, staff officers and all personnel authorised to receive anti gas equipment, plus all reserves

As a result of these measures, 212 medical officers<sup>2</sup> were trained in the treatment of gas casualties. These trained individuals were always available to train further personnel in case of urgent necessity.

<sup>2</sup> Province

Assam  
Bengal  
Bihar  
Orissa  
Madras

Medical officers trained

11  
106  
40  
16  
39

Total

212

## CIVIL BLOOD TRANSFUSION SERVICES\*

The establishment of blood banks in India originated at a meeting held at Simla in June 1941, to consider the possibilities of preparing large quantities of liquid and dried serum at the All India Institute of Hygiene and Public Health, Calcutta. Further meetings were held during that year in Delhi and two Desivac machines for the preparation of dried serum were ordered from the United States of America. Proposals were also formulated for the manufacture of liquid serum at Lahore. In January 1942, the Governor General addressed personal letters to the Governors of provinces requesting them to take all possible measures to develop blood transfusion services in their provinces to the fullest possible extent. The measures taken were at first directed and co-ordinated by the ADGIMS (ARP) and later by the Officer on Special Duty in the office of the DGIMS. The general policy was to keep the donor services purely voluntary, no payment being made for blood donations. The quantity of blood collected in the various provinces, therefore, depended on the willingness of the public to donate blood. Blood banks were established in most provinces but the quantity of blood collected at the various centres was on the whole disappointing, although in some places considerable quantities were collected. Following the establishment of blood banks in the various provinces an intensive drive for donors was undertaken largely under the auspices of the provincial branches of the Red Cross. This drive took the form of public meetings, addressed by prominent public men, including in many cases the Governor of the province, appeals in the press, broadcast talks, distribution of pamphlets, exhibition of posters and personal propaganda by the officials of various blood banks. Arrangements were made to collect blood at suitable centres such as clubs, offices, schools, etc., and special efforts were made to meet the convenience of donors. In some banks badges or certificates were given to the donors. Blood banks were established in the following places :—

<i>Provinces etc.</i>	<i>Location of blood banks</i>	<i>Date established</i>
Bengal	All-India Institute of Public Health and Hygiene, Calcutta	February 1942
Bombay	Haffkine Institute, Bombay	April 1942
North West Frontier Province	Lady Reading Hospital, Peshawar	April 1942
Bihar	Prince of Wales Medical College, Patna. Blood Bank, Dhanbad	May 1942
Delhi	Irwin Hospital, New Delhi	May 1942
Madras	King Institute, Guindy, Madras Erskine Hospital, Madura Pesteur Institute, Conoor	May 1942
Punjab	King George's Hospital, Vizagapatam Lady Willingdon Hospital, Lahore	May 1942

\* See also *Medicine, Surgery & Pathology Blood Transfusion Services.*

<i>Province etc</i>	<i>Location of blood banks</i>	<i>Date established</i>
Orissa	Provincial Public Health and Pathological Laboratory, Cuttack	July 1942
Rajputana	Windham Hospital, Jodhpur	August 1942
Sind	Blood Bank, Karachi	August 1942
	Civil Hospital, Hyderabad	
Assam	Pasteur Institute, Shillong	September 1942
	Bleeding Centres at Shillong	
	Dibrugarh, Gauhati, Sylhet, and	
	Silchar	
United Provinces	Blood Bank, Lucknow	
Mysore	Bowring Hospital, Bangalore	1942
Hyderabad	K E M Hospital, Secunderabad	1942

#### ARRANGEMENT FOR THE SAFE DEPOSIT OF RADIUM

It is essential to store radium in a safe place and in heavy steel containers with walls composed of metallic lead of one inch thickness. These containers can be lowered to the bottom of a bore-hole in the event of an air raid warning. In view of the risk that the destruction of an ordinary radium ward by bombs might liberate many thousand lethal doses of radium, the following alternative schemes for carrying on treatment during war time were put forward and accepted —

- (i) The radium could be used in the normal way at a safe site immune from air attack.
- (ii) The radium could be used for beam therapy and plaques only, so that all radium could be quickly transferred to a deep well within a few minutes of an air raid warning.
- (iii) Interstitial radium treatment should be ruled out on the declaration of a state of emergency.
- (iv) The radium could be used normally on the understanding that, should the site suffer a direct hit, the site would be abandoned or cleared of contaminated debris by suitably protected workers.
- (v) Radon might be used in place of radium.

#### RECORDING AND NOTIFICATION OF CASUALTIES

It was necessary that proper records of casualties should be kept both at first aid posts and at hospitals and for this purpose the ARP Casualty Register form and 'tie-on-label' had been adopted. All records of war casualties were to be finally kept at some central office, e.g., 'casualty record office situated at the provincial headquarters ARP. Covers for 'medical history documents' of air raid casualties were prepared by the hospital to which a patient was first admitted and all medical documents relating to the case were placed therein. These accompanied the patient from hospital to hospital (on transfer) and on final discharge these were transmitted to the casualty record office at the provincial headquarters ARP.

## CONCLUSION

Arrangements for the co-ordination and consolidation of procurement of all medical supplies, military and civil, through the Department of Supply (Medical Division) were put into operation in July 1943, but this was too late so far as the supply of initial ARP medical equipment was concerned. By this time the supplies had already been obtained by various means, not always the most efficient and economical. It would appear that if similar circumstances should arise at some future date, the provisioning and procurement of ARP medical supplies should be carried out by a separate supply organisation for civil defence as a whole, working as part of the general supply organisation of the Government of India. ARP medical supplies are an entirely separate problem, and to mix them up with the normal civil medical supplies is to court failure and breakdown. It was fortunate that the central reserve of ARP medical stores was not called upon to fulfil the functions for which it was originally designed. It, however, performed a very useful function in completing the arrangements for the supply of the initial medical equipment in the provinces which were badly in arrears in their programme. During the famine in Bengal, too, the reserve proved invaluable in that it was found possible to release certain stores, which were originally intended for air raid casualties, for the relief of the sick in the famine area. This, of course, was not originally foreseen, but the availability of the stores was very fortunate. It was fortunate too that two other big reserve organisations, the central reserve of hospital beds in the Central Provinces, and the civil defence ambulance train were not called upon to carry out their original function. The Civil Defence ambulance train, however, proved useful in that it was loaned to the military authorities for the transport of military casualties when the latter were in urgent need of ambulance trains. The shortage of medical officers and nurses for ARP duties in India was intimately bound up with the general shortage of such personnel in the country even in times of peace. This was accentuated by the demand for medical officers for the armed forces. No special measures for increasing the numbers for ARP alone were likely to meet with any degree of success. The improvement of the medical manpower position must form part of the post-war health policy.<sup>3</sup>

<sup>3</sup> H/5/10/H(M).

## APPENDIX I

### The Joint War Organisation of the Indian Red Cross Society and St John Ambulance Association (Indian Council), Post-War Plans and Medical After Care Fund, Indian Red Cross Society<sup>1</sup>

Before the outbreak of World War II in September 1939, aid to service and ex-servicemen did not form part of the regular activities of the Indian Red Cross Society, though in the North West Frontier operations of 1936-37, special subscriptions were raised and gifts were sent to medical units for the sick and wounded. The society's provincial branches however, on a very limited scale, supplied comforts to service hospitals within their jurisdiction and assisted a certain number of sick Indian ex-servicemen. The society also disbursed grants to British ex-servicemen of World War I from the funds placed at its disposal by the Joint War Finance Committee of the British Red Cross and the Order of St John.

#### ORGANISATION

At the outbreak of World War II, it was realised that to render adequate service to the soldiers in the field a special joint war organisation and a co ordination of all Red Cross activities would be required. The joint war organisation was thus evolved as a joint venture of the Indian Red Cross Society and the St John Ambulance Association (Indian Council) for the purpose of giving effect to the objects of the Geneva Convention during World War II in the various theatres of operations in so far as the armed forces of India were concerned. The Indian Red Cross Society was founded under an Indian Act of 1920 as a national society preparing in times of peace for its role of caring for the sick and wounded during war and enjoying the privileges of a neutral status under international law when working under the emblem of the Red Cross. This protection of the Red Cross for its members and their patients is contingent upon their serving the cause of humanity and not the interests of any belligerent. The society is, thus, precluded from rendering aid to any person so long as he continues to be a combatant.

<sup>1</sup> The history and the account of the work of the Joint War Organisation of the Indian Red Cross Society and St. John Ambulance Association (Indian Council) has been compiled almost *verbatim* from a report entitled *Historical and Critical Review of the work during our years 1939-46* written by Mr (now Sir) William Tennant who as its honorary treasurer was closely associated with the work of the organisation and was responsible for its winding up and handing over to the Joint Council of the Indian Red Cross Society and St John Ambulance Association (L/2/36/H(M)).

## CONCLUSION

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“ So long as he is sick, wounded or a prisoner the help that the Red Cross will offer him is limited only by their material resources and the other claims upon them ; but the moment he again takes arms into his hands he loses the protection of the Red Cross emblem and accordingly the Red Cross Society is unable to minister to him. Subject to this condition, the joint war organisation is the channel whereby all forms of voluntary benevolence are directed to aid the men of the fighting forces when permanently or temporarily disabled from action against the enemy ”.

In India, however, the earlier organisation, and the first to take practical action to train personnel for this humanitarian task, was the Order of St. John of Jerusalem, which founded the St. John Ambulance Brigade to band together those who had been trained by the St. John Ambulance Association. Branches of this Association and of the Brigade existed in India during World War I and in conjunction with an overseas commission of the British Red Cross Society did notable work for the forces of India, wearing, necessarily, for their protection in the field the internationally recognised Red Cross emblem in addition to their own St. John Cross.

In the years between the wars the association of these two bodies in India grew closer and by mutual agreement the Indian Red Cross Society undertook the material, and the St. John Ambulance Association the personnel, side of preparation for future wars. In the late thirties, as the shadows of the war loomed nearer, representatives of the two bodies agreed upon a ‘ Mobilisation Plan ’ outlining in their respective duties and providing *inter alia* for a joint war organisation, which was to come into being, both at the centre and in every provincial and state branch throughout India, on the outbreak of war under the guidance of a central joint war committee nominated from among their members by the Viceroy as honorary president of both the bodies. On the outbreak of war, this committee held its first formal meeting on 1 September 1939, and proceeded to put the plan into operation. Parallel joint committees came into being at the same time in most of the branches.

The first committee was composed of :—

1. Mr H S. Grosthwaite, CIE, ICS (Chairman).
2. Sir Ernest Burdon, KCIE, CSI, ICS
3. Major-General E W C Bradfield, CIE, OBE, KHS.
4. Major-General G C Tabuteau, DSO, KHS.
5. Mr. A C. Badenoch, CSI, CIE, ICS
6. The Hon’ble Sir Rahimtoola Chinyoy
7. Sri U. N Sen
8. Seth Haji Sir Abdoolah Haroon
9. Sri Ram Saran Dass
10. Colonel G. G. Jolly, CIE, VHS, IMS
11. Khan Bhadur Dr. A Hamid, DPH, (Secretary).

## THE PLAN

The 'Mobilisation Plan' was of inestimable value in the early stages, indeed, the committee erred in not following it more closely in certain particulars, for example, in the early appointment of assistant commissioners, who could serve as interpreters of central policy not merely to the Armies/Commands but also to the provincial and state branches of the organisation within these Armies/Commands, which tended in their absence to develop policies and dissipate resources on objects out of harmony with the Geneva Convention. "All wars, however, confound foresight and this war most of all from the spring of 1940, it began to expand in totally unexpected directions and to raise up new emergencies against which no guarantees had been provided." The truth of this observation was soon illustrated in India by the partial failure of the plan in its provisions concerning finance and personnel, on the one hand, and the drafting of the appeal of November 1939, on the other. The authors of the plan had overestimated the willingness of the branches, which had the money and the workers, to follow implicitly the wishes of the centre. Thus for the first three years the centre could not count upon the large income which was essential to meet its objects overseas and enable it to make long term plans. It was also unable to obtain in adequate numbers, when it needed them from 1942, onwards, the trained personnel, mostly of the St John Ambulance Brigade, whom the branches had permitted to be employed in earlier years in activities beneficial to combatant members of the armed forces, which, though consonant with the plan, was contrary to the Convention. Despite these imperfections, however, the plan afforded an invaluable ground-work for the joint organisation.

## THE APPEAL

The appeal of November 1939, was both too wide and too narrow in its scope—too wide in so far as it stated that the work of the Red Cross and St John served also troops in the field, and too narrow in that it covered only troops and did not include civilian victims of a total war. That it was wider than the Convention allowed was recognised by the centre within a few weeks of its issue, but when the branches were told that their collections must be reserved exclusively for the sick and wounded, many rebelled against this, to their minds, pedantically legalistic view, for there were as yet no wounded and few sick in India, whereas the clamant needs of the fit troops for comforts of all kinds were plain before their eyes. Thus the sympathies of the branches were in some measure alienated from the centre, and it took some years of patient effort to restore mutual confidence. The appeal too may have been mistimed. It was perhaps too late to take advantage of the initial impulse of generosity which the outbreak of war generally evokes, its initial impetus was lost in the strange apathy of the earlier months of the war and subscriptions dwindled month by month.

## THE COMMITTEE

The committee under the plan, with its small official majority in a total of ten members, was well chosen for the taking of sound decisions on policy and of prompt action in implementing them, but its popularity was impaired by its lack of branch and Indian representatives ; and when these defects were partially rectified by additional nominations, it grew so large that it could not meet frequently and, when it did, was often short of representatives from outside the headquarters, which in 1942 were located in Simla. The result was that while it lost much in efficiency, it gained little in popularity. Efficiency, in the form of prompt decisions, was to some extent restored when the committee agreed, early in 1941, to appoint a small executive committee ; this developed into a working committee composed of all the members available in Simla and empowered to take decisions on urgent items of business and minor policy matters. But, as the tempo of the war grew more rapid, this committee had perforce either to delay urgent decisions in what seemed to it emergencies or else to encroach on those aspects of policy which the main committee had sought to reserve for itself ; and complete harmony between them was never attained. No remedy for the committee's unpopularity with the branches existed in the plan—such a thing had evidently never been anticipated—and it was not until 1942 that the central committee realised, mainly at the president's promptings, that it had failed to make any effectual use of the instrument (not even mentioned in the plan) of systematic publicity concerning the aims and achievements of the organisation in order to evoke active public interest in its doings and liberal contributions for its appeal fund. Publicity was no less needed to revive enthusiasm among the Red Cross workers themselves throughout India. This was in a large measure secured by the annual conferences of branch representatives, the first of which was held in November 1942, with the most gratifying results in reconciling the branches, which were able for the first time to appreciate the work the centre had been doing and to offer their unreserved co-operation in the tasks that lay ahead. Such conferences and professional publicity should undoubtedly have been undertaken from the very beginning of the war. Another weakness of the plan was to designate the Red Cross Commissioner as the chairman of the committee and its working committee. This was remedied in 1943, when Lady Linlithgow, as president of the general body, decided to preside over the committee meetings. The committee was fortunate in having the guidance of the Viceroy in all matters of high policy and had direct access at the highest level to the commanders of the overseas forces and the heads of the provinces and states in India. The committee was fortunate in having as its presidents two ladies, Lady Linlithgow and Lady Wavell, whose personalities and ripe wisdom and experience as well as, whose breadth of vision and unwearied devotion, brought solid advantages to this joint war organisation.

## THE EXECUTIVE

But the provision of officers to man its services was difficult. The actual field of choice was limited to the civil and military pensioners of European British nationality as all members of that class below the age of fifty had been conscripted by the Government. Even here it was not possible to find suitable persons, firstly because of the demand for the services of competent non-officials by the expanding war industry and stores and supply establishments, and secondly owing to the low emoluments, over and above their pensions, which the organisation could pay. These terms failed to attract suitable persons in a period of rising prices. Moreover, the committee could not have the benefit of the services of that class of Army officers on the unemployed list, which had been available in World War I, who could be paid only staff pay by the committee, as they retained all the privileges and emoluments associated with their rank. In World War II also, the first two or three civilian assistant commissioners who went overseas were given nominal commissions in the AIRO to enable them to secure all the associated privileges. But this practice was soon stopped by the War Office, which compelled the organisation to depend entirely on retired Europeans who could not long endure the strain of the continuous economy occasioned by their inadequate emoluments and so resigned. It was difficult to find successors for them and this problem remained a constant source of anxiety. For the future, the lesson would therefore be to recruit suitable officers when war is imminent and to fix their emoluments on an equitable basis. So far as is practicable younger candidates should be sought and for this government co operation should be available.

The subordinate staff although difficult to secure and expensive to maintain rendered devoted service. Their terms of service had to be better than those offered by the Government owing to the temporary nature of their appointment. Their numbers, however, grew large necessitating the framing of codes and regulations governing the conditions of their service both in India and overseas.

## RELATIONS WITH OTHER RED CROSS ORGANISATIONS AND THE GOVERNMENT OF INDIA

The British joint war organisation continued to be a constant guide and a generous friend from beginning to end. Liaison with it was established early through the medical adviser at the India Office, who served as representative of the Indian organisation in London. All the arrangements for service to Indian POW in the west, other than the actual packing of parcels, which was done by the Indian Comforts Fund, were made by the British joint war organisation. So, too, were the many expedients tried from time to time to contrive an adequate service to prisoners in Japanese hands. Similarly, on the welfare side, the British joint war organisation provided experts to organise and train the service and also British workers to complete the cadre. In return the Indian organisation was glad to undertake the

servicing of British troops both in the India and the Iraq/Iran Commands.

Relations with the Australian Red Cross were equally happy. This organisation took primary responsibility for all British Commonwealth and Indian forces in Ceylon, India contributing special stores for Indian troops and affording reciprocal facilities to Australian forces passing through India.

The Burma and Malayan Red Cross Societies co-operated in supplying comforts to the Indian garrisons there before the war with the Japanese began, in return the Indian organisation sent them stores as long as this was possible. In 1943, the Trustees of the Burma Red Cross Society and St. John Ambulance Brigade joined forces with the Indian organisation, which for the next two years became the India and Burma joint war organisation, during which time special Burma work parties laboured, at the expense of the Burma society's contributions to the common fund, to prepare articles mainly for civilian relief when Burma was reoccupied; and the organisation raised and trained a Burma civil relief unit for work under the Burma civil affairs section of SEAC.

Useful contacts were also established with the American Red Cross and reciprocal services rendered both in the Middle East early in the war and later in India, and arrangements were made with it and with the British commissioner to eliminate competitive buying in Indian markets.

Towards the end of the war Red Cross work in SEAC was divided, mainly on a geographical basis, between the Indian, British and Australian contingents; the Indian organisation assuming administrative charge of the mixed staff in Burma and the Netherlands East Indies, the British in Malaya, Siam, and Indo-China and the Australian Red Cross assuming responsibility for the Commonwealth occupation forces in Japan.

Satisfactory official relations with the Government of India could not be fully established until the war had ended, when the government recognised in an official order,<sup>2</sup> that it would be wrong in principle and might seriously compromise its status under the Geneva Convention to include the joint war organisation among the voluntary societies approved and working under the Welfare General's Branch, that the correct position of the Red Cross in relation to the armed forces was firstly as an auxiliary to the military medical services and secondly as a supplement to the official services for POW, and that it should have, therefore, its own unique relations with the Defence Department generally through the medium of the Medical and POW Directorates and should be accorded the reasonable facilities (detailed in that order) for the prompt and proper execution of its self-imposed tasks. The Red Cross workers under this order were assigned military status for purposes of discipline and protection in accordance with the duties they performed. They were authorised

<sup>2</sup> AI(I)25/1946

railway travel at government expense when the journey was carried out on duty for the forces. Commissioners, Directors and Deputy Red Cross Commissioners could travel free by air. Other transport, stores, canteen, accommodation, postal, banking and medical facilities were also provided by the Army.

This order—the outcome of protracted discussions—should serve as a charter for the Indian Red Cross in future wars. There is no need to recapitulate the earlier disagreements and misunderstandings that sometimes impeded the plans of the organisation. It is enough to record here that, though official relations were at times difficult, the successive commissioners had in general most cordial and mutually helpful personal relations with their opposite numbers in the official services. When difficulties arose, the cause was usually security for operational plans, which meant that the Commissioner when entrusted with an official secret had to initiate action for reasons he might not be able to explain to his own committee, much less to the branch committees often called upon to make the actual preparations. Although the organisation received no direct subventions from the government during the war it did enjoy two valuable financial concessions, *viz.*, (i) exemption from customs duty from early 1943 onwards, on all stores certified to be imported for genuinely Red Cross war purposes, and (ii) free carriage of its stores throughout India, accorded by both state and company railways, and concessional rates for the journeys of its officers.

#### RELATIONS WITH THE BURMA RED CROSS

Shortly after the fall of Burma in May 1942, the Burma joint war committee requested the Indian joint war committee to take over its functions until such time as the former could return to Burma. In consequence, the Indian organisation became for over two years the India and Burma joint war organisation, and two trustees of the Burma committee were added to the Indian committee—Lady Dorman Smith and Sir Herbert Dunkley.

The Burma trustees made over to the Indian joint war committee the interest on their securities as their contribution for the common purpose. The first specific expenditure, over and above the general service to Burma forces equally with the Indian, was that of financing the Burma work parties in various stations in India for material and contingencies. These parties were busy making garments for civilian refugees, both for those who had already come to India and those whom they hoped to assist as Burma was re-occupied, and were composed mainly of members of the St John Ambulance Brigade, Burma District. The next and larger scheme was the recruitment and training, in 1944, of the Burma civil relief unit. It was decided that expenditure on civilian relief could not be financed out of the Indian 'war' collections, at all events beyond the extent of Burma's contribution to the joint fund, and eventually it was agreed to charge the expenses of this unit to the Burma Civil Affairs Service.

The main purpose of this unit was to render help towards the relief of sickness, suffering and distress caused by the operations of war among the civil population of Burma, and included specifically the following services : (i) first aid and home nursing, (ii) simple midwifery and child welfare, and (iii) relief work, such as the distribution of supplies, food and clothing.

The unit was regarded as a Red Cross unit and, although the members were civilians, they were subject to military law when attached to military units in field service areas. For the purpose of administration the unit was split into companies controlled by a few selected members who were graded as officers. All candidates for the unit were posted on recruitment to a training centre at Rampur where they underwent training for a period of approximately three months. The number thus recruited, however, did not exceed forty.

On the re-occupation of Burma it was decided that the Burma Red Cross should re-establish itself and on 1 June 1945, the Burma Red Cross took over control of the unit and became, after that date, entirely responsible for its organisation and maintenance. The unit was finally disbanded on 31 December 1945.

#### THE ACTIVITIES OF THE CENTRAL ORGANISATION

A historical summary of the central organisation's achievements in the seven years of its existence is given below. It includes comments on certain matters which might, in retrospect, have been handled more efficiently and which therefore, contain lessons for the future.

The organisation grew slowly, somewhat haphazardly, in the first two years, after which it was organised systematically in departments and sections, each under a responsible head. The only important innovation in 1944 was the creation of the regions which effected a degree of decentralisation. In the subsequent pages is given an account of the working of the organisation, both when it functioned as a unit and after its various departments and sections had come into being.

#### POLICY AND ADMINISTRATION 1939

On the outbreak of hostilities on 3 September 1939, the ' Mobilisation Plan ' came immediately into operation and advances were made to the different branches of the organisation for the purchase of stores and materials. Mr. H. S. (later Sir Hugh) Crosthwaite took charge as Red Cross Commissioner of the headquarters at Delhi on 1 October 1939, with three clerks to assist him. The maintenance of the war accounts was undertaken by the honorary treasurer, Indian Red Cross Society.

The main task of the organisation in the early months was to discover the demands of the military medical authorities overseas and to meet these both by purchase (mainly through the Bombay and Bengal branches) and by collecting the output of the work-parties

which were springing up rapidly all over India. Most of the demands came from the western theatre, for which Bombay was the chief port of shipment. In January 1940, a depot under the honorary secretary of the Bombay branch, had to be set up there to cope with the receipt of goods (which then included 'amenity' as well as Red Cross supplies) from up-country and their prompt despatch overseas.

1940 Early 1940 saw no remarkable developments. The commissioner had to tour extensively in order to reconcile the branches to the restrictions imposed upon their activities and to co-ordinate supplies. Routine enquiries from work-parties about standard patterns and materials for their work were also answered.

On 1 July 1940, Lieut-General Sir Bertrand Moberly, formerly QMG in India, succeeded Sir Hugh Crosthwaite as commissioner. His first task was to build up the Middle East commission of which Sir Richard Needham had just been appointed the head. Next he took up the building of a central reserve at New Delhi for despatch, as need arose, either to Malaya or the Middle East to relieve the Bengal and Bombay branches. He was given authority to purchase almost up to the limit of central funds. Prisoners' parcels and supplies to Australian hospital ships touching Indian ports were also provided. For some eighteen months, from 1 February 1940, the commissioner was also secretary of the 'Amenities for Troops Fund'—an undertaking which spent twice as much in that period as the Red Cross, and which dealt with games and sports goods and comforts of all kinds. In August 1941, however, he was relieved of this onerous task except for the provision of knitted comforts, which too passed to a separate woollen comforts committee on 1 May 1942.

1941 This was a year of consolidation and steady growth in the capacity to meet commitments. At headquarters an assistant commissioner was added in January to take charge of the office and the postal message scheme. In June 1941, a deputy commissioner was appointed to handle problems connected with POW and the personnel side of the organisation. On the stores side the commissioner had the assistance of a succession of voluntary workers. The New Delhi depot buildings were opened in March 1941. Overseas, the most important new venture of the year was the staffing and equipping of the Iraq/Iran commission.

During this year the committee took some important decisions of policy which expanded the scope of its work. A small executive committee consisting of the commissioner and honorary treasurer was set up for urgent executive decisions. It was also decided to undertake Red Cross service for the Indian, British and Allied forces in the Iraq/Iran Command. Moreover, the organisation's service within India was extended from the war hospitals proper to those station hospitals which had been substantially enlarged to meet the expansion of the forces and now embraced the relief of civilian distress caused by actual air raids.

1942 By the spring of 1942, the re-organisation was completed by the appointment of two deputy commissioners at headquarters—



Major-General N. C. Bannatyne in charge of POW and kindred matters, and Major-General J. S. Marshall in charge of stores and supplies. The officer-in-charge of the depot at Bombay was promoted to the rank of a deputy commissioner. The depots at Calcutta, Madras, Lahore and Karachi continued under the charge of their branch committees.

About the same time the committee set about planning two new activities—organised publicity and personal service to patients in hospitals. On the initiative, in March 1942, of the president, publicity was directed towards capturing the imagination and the financial support of the public. A publicity campaign was planned at a conference in July 1942, and brought into operation later in the year, but it was not until January 1943, that the committee obtained its first professional organiser of publicity, lent from the Army, and the publicity section took formal shape.

The other innovation—the organising of a personal service in hospitals which developed two years later into the Red Cross welfare service—took the form of inviting the Women's Voluntary Service in India, and similar bodies overseas, to undertake regular visits by their members to the hospitals, writing letters for patients, organising libraries and teaching handicrafts—for all of which the Red Cross provided the necessary material. The care of the Red Cross stores in these hospitals was also entrusted to the Women's Voluntary Service where members of the St. John Ambulance Brigade had not already assumed responsibility.

The strain thrown on the organisation in 1942 by the developments of the war—the withdrawal of Indian and British forces from Burma and the evacuation of casualties and refugees through Assam and Bengal—is set out mainly in the sectional narratives that follow. The chief policy decisions of the year were the declaration of all hospitals in India as war hospitals entitled to receive Red Cross service on approved scales on their total bed strengths, and the giving of full Red Cross service to all members of the British forces in India. Another was to extend service to civilians, not merely to the actual victims of air-raids but in grave emergency to those in the war areas suffering from casuses directly attributable to the war.

Another development with far-reaching consequences was the holding, in November 1942, of the first conference of representatives of provincial and state joint war committees, which helped materially to remove misunderstandings. The policy and plans were then integrated with the full and enthusiastic co-operation of the branches in future work.

1943 The main developments of 1943, were the enlargement of the executive committee—then called the working committee—and the financial response to the Red Cross week campaign early in the year which relieved the committee of its anxiety about making ends meet and enabled it to plan confidently ahead on a scale commensurate with long term needs. The committee was also enlarged, in September 1943, by the addition of two trustees of the Burma

Red Cross Society, and from that date until June 1945, its full title became the India and Burma joint war committee. It was decided, among other matters of policy, to meet the full cost of all parcels sent by the 'Indian Comforts Fund' to Indian POW in Europe, to allot seven and a half lakhs of rupees for relief work amongst civilians in Bengal suffering by reason of the war on its eastern border, and to restrict the wearing of its approved uniform to duly accredited full, or regular part-time, workers and that only in the performance of their duties for the organisation.

The last event of the year was the resignation of Sir Bertrand Moberly after three and a half years of devoted service which had placed the organisation on a sound basis. He was succeeded on 1 December 1943, by Sir Gordon Jolly, formerly DGIMS.

1944 The year 1944 saw the completion of the committee's preparations, as far as need could then be foreseen, for a year which was to see a full scale attack and possible victory in South East Asia. A second conference with branch representatives held in November 1943, had ensured the still closer co operation of the centre and the branches, which was enhanced by the introduction in stages of the regional commissioners, each responsible for close collaboration in the area under her or his jurisdiction.

The year also saw the inauguration of the Indian Red Cross welfare service with its special sections for searching and progress reports, and the arrival, in its early months, of the British joint war organisation experts to train the members in their duties. Brigadier Howard became its first director, with authority to recruit up to 500 members. An all India welfare conference was held in Calcutta in August 1944, which suggested remedies for the imperfections in the original scheme.

Briefly, the Indian organisation retained all servicing of hospitals within India (except for an all-British block at Jalahali which was to serve as the British commission's base and a training ground for its welfare service), and all service to hospitals, Indian as well as British, in the Fourteenth Army Area (Burma), while the British commission assumed responsibility for new British divisions in transit through India and for British hospitals in Malaya and beyond.

Another undertaking of the year was the formation, on behalf of the Civil Affairs Service (Burma) of SEAC, of a Red Cross relief unit (Burma) whose duties were to be a mixture of simple nursing and relief work, chiefly among the women and children of the re-occupied areas of Burma.

Among the minor policy decisions of the year two are worthy of mention. The committee approved in principle the attachment of the organisation to the War Department for the purpose of obtaining essential facilities for its staff and operations. It resolved, too, that all hospital welfare work performed by the organisation must be controlled by the organisation, and this led, towards the end of the year after a joint conference with the representatives of the managing

body of the Women's Voluntary Service, to the latter recognising the hegemony of the Red Cross within this sphere.

1945 : The activities of the joint war organisation reached their peak during the year 1945. The headquarters staff had been strengthened and the work more thoroughly reorganised in departments and sections ; the major ones being POW and civil internees, stores, welfare, finance and general, with minor sections dealing with messages, publicity, work parties, handicraft materials and literature. This full development was reached just in time ; so too were the understandings reached with GHQ, SEAC, the British commission and the Women's Voluntary Service.

Early in the year Lady Hutton became Director of Welfare, relieving Brigadier Howard to take charge as the committee's representative at headquarters, Supreme Allied Commander, South East Asia and SEAC commission was formed at headquarters ALFSEA with Colonel Bijetindra Basu in charge.

Financial resources for 1945 had been recognised as being inadequate at the third conference of branch representatives held in November 1944, but the conference recommended the deferment of the next campaign for funds until autumn of 1945.

In the meantime the restricted scope of the appeal of November 1939, became manifest as the committee was successively asked, early in 1945, to undertake the relief of civilians, particularly Indian nationals, in the countries shortly to be liberated, during the period of their military administration ; and to afford succour to released European civilian internees during their homeward journeys and stay in India. The president agreed to make funds available for these purposes by advances and grants from his war purposes fund pending the launching of a final and comprehensive appeal in November 1945. This enabled the committee to do all that was required of it for these distressed civilians, both by providing stores in various places in the Far East as far as Shanghai, and, in particular, by fitting out a special civil relief unit for the debilitated population of the Andamans, which arrived there on the 3 November 1945, complete with comforts for invalids, clothing and its own mobile canteen, which also served as a mobile dispensary.

Two major decisions of policy deserve particular mention. The committee promptly tackled the modification of its plans brought about by the unexpectedly early collapse of Japan, cancelling or curtailng outstanding orders and setting up, after a conference with the Director General, Disposals, Sir Robert Targett, who agreed to act as its honorary adviser, a special disposals sub-committee to deal with the mass of stores accumulated in anticipation of a much longer campaign.

The committee felt too that all the impetus towards humanitarian work for the victims of war should not be abruptly terminated with the coming of peace, and therefore gave long and careful consideration to the best mode of utilising a gift of £110,000 made

by the British and Scottish Red Cross Societies in the best interests of Indian members of the services, preferably of a concrete and tangible nature and definitely within the sphere of true Red Cross activities. The committee ultimately decided on the institution of a Red Cross home for the care of the seriously disabled of the forces, somewhat on the lines of the Star and Garter Home at Richmond, and the assent of the donors was obtained to this scheme by the end of the year.

1946 The special features of the year 1946 were the demobilisation of the war organisation and the elaboration of the scheme for the utilisation of its closing balance.

The first major reduction was that of the welfare service which came to an official end on 30 June 1946, except for a few workers who continued on the old terms in overseas Indian hospitals until their return to India. In its place a new service was started with a cadre of 65 on 1 July 1946, to continue work for a year in service hospitals, and any welfare officers not so required were lent to the civil hospitals until the committee's successors should determine its future policy.

The disposal of surplus stores started in the spring of 1946, both in India and overseas. It was much complicated by governmental controls over price and purchaser, by demands for customs duty on articles imported free of duty by the special concession of 1943, and, from June 1946 onwards, by the series of railway, postal and bank strikes followed by riots in Bengal and Bombay.

By strenuous efforts, by reducing prices and disposing off to hospitals and relief organisations at generously reduced rates, practically all these stores were sold by the end of 1946 for about twenty-two lakhs of rupees, except for a small residue in Calcutta where business was poor.

#### DEPARTMENTS AND SECTIONS

*Work Parties* From a small number of voluntary work parties which had got well under way by October 1939, sprang the stores section of the Indian Red Cross. These parties were the first manifestation of Red Cross activity after the war began and were formed by women who banded themselves together to see what might be produced by them for the service hospitals.

They began to work under difficulties: a few of the women had some knowledge of hospital requirements, and the matrons of hospitals gave what advice they could, based largely upon the needs of the sick and not of the wounded, a fact that accounted for the many shortages of essentials which became apparent later.

In November 1939, in response to an enquiry from headquarters, suggestions for hospital comforts were received from the expeditionary force hospitals in Egypt and Malaya and were passed on as a guide to the Red Cross branches. These were followed shortly by a pamphlet, *A Simple Guide to Ladies' Work Parties*, which was twice revised during the war years though without any essential changes.

By the end of 1939, the work parties in India had supplied to hospitals on the frontier and overseas 13,239 sewn and knitted garments. This figure is interesting when it is compared with that for the same quarter of 1944, when the output stood at 607,092 garments and had not yet reached its peak. This perhaps shows more clearly than anything else the steadily increasing effort put into the work parties throughout the war years.

In the year 1940 it was represented from many parts of India that headquarters should specify the total quantity of every work-party item it required and, to avoid wasteful duplication, state the amount expected from each provincial and state branch.

Before the expansion of Indian hospitals had started, this quota system worked quite well but it was later to become quite unworkable and a great source of confusion and difficulty. If at that stage each branch had been instructed to work out on the best available military medical advice a general scale of issues per 100 beds and to build up a well-proportioned stock of all hospital requirements on this basis, increasing the stock as new hospital beds were opened in its area, the difficult situations which arose later might have been avoided.

In November 1940, headquarters produced a pamphlet for issue to all work-parties giving directions for both knitted and sewn articles. This pamphlet erred in the fact that in addition to giving directions for sewing and knitting, it attempted to state what articles were still required at the time of going to press and what were already in sufficient supply, with the consequence that most of the information contained in it was out of date in a very short time. It would seem to be important in laying down instructions for the manufacture of work-party items that directions only (and these as accurate and easy to follow as possible) should be included in any pamphlet on this subject.

On 4 June 1941, a pamphlet on the making of work-party articles was issued with revised instructions. An ideal for future wars would be the preparation of Red Cross patterns, made under the most careful supervision and accompanied by a list of suitable alternative materials, ready for issue to work-parties at the beginning of hostilities.

In 1941, the organisation was struggling simultaneously to meet overseas demands and to build up a reserve in India. Indian troops were, by the end of this year, fighting in Syria, Persia, Burma and Hongkong, as well as in Africa and Malaya. A consignment of work-party articles had been sent to Singapore at the request of the Red Cross Committee for India in Malaya. Just before the first Japanese attack, the committee in Malaya reported that there was a heavy demand for surgical dressings, bandages and ward items. Fortunately it was possible for the Madras branch to send a good supply of all these items, but surgical dressings remained for a long time one of the definite shortages in work-party supplies. In catering for war-time needs, *i.e.*, first and foremost the needs of wounded men, surgical dressings should be given priority. In the early days of the work-parties, knitting was given this priority, and thousands of mufflers, pullovers and socks were produced whose main use was for fit members

of the forces During the final quarter of 1941 the total output for India was 51,324 articles

The year 1942 saw a very great expansion in the demands on work parties It was evident by that time that the war would be a long one, casualties were filling service hospitals throughout India, all of which were then looked upon as war hospitals To avoid delays in despatching Red Cross stores to every part of the country, new depots were set up under the central organisation, whose function was to hold adequate supplies of work party, as well as general, stores to meet indents not only from hospitals in India but overseas as well These depots furnished headquarters with a monthly stock list of all work party articles received and issued

In 1942, Mrs A M Kennedy, who had been making special high grade surgical dressings for use specially in forward areas, was brought under the aegis of headquarters with a yearly monetary grant to enable her to purchase materials, and she continued to work until 31 January 1946 Mrs Kennedy sent out complete sets of her patterns to many work parties as the demands grew, and they came to be accepted as the standard Red Cross patterns for surgical dressings Lady Louis Mountbatten took with her a complete set of the Kennedy special dressings to show to work-parties in England Mrs Kennedy's work-party actually despatched 810,387 dressings to medical units in the field between 1 February 1941 and 19 October 1944 Her average annual production was over a quarter of a million

No major changes occurred during 1943 The work-parties, which were just beginning to realise the magnitude of their task, worked steadily on and produced the enormous quantities of articles needed to meet the ever increasing hospital demands

In January 1944, a work party sub committee was convened to discuss policy, serving upon it among others, were the matron-in-chief and a senior medical officer, selected by the DMS in India, both of whom gave most helpful advice and suggestions, in particular, that most work-parties should concentrate upon the making of surgical (cut gauze) dressings since, in view of what lay ahead, there could not be too many of these, a statement which was later to a great extent justified

Owing to an unfortunate impression created by a loosely worded statement by headquarters as far back as 1942, that the Indian organisation held vast stores of work party products lying unused in various depots, work-party production in 1944 was falling, and work party stocks were, by the beginning of that year, so low as to give rise to anxiety To counteract this fall in supply, *durzi* schemes were started in a big way in many stations, and did, certainly, ease the situation, but stocks were too low, and, whenever sudden large demands arose, as they did throughout the year, the supply of work party articles to meet them produced almost a minor crisis This became particularly evident when the organisation was called upon to start equipping the first of the Indian Red Cross mobile field stores units in July 1944, and work party articles were needed in such numbers as 34,000

of Red Cross stores by hospitals needing them ; but, while they were being equipped, all provincial committees were asked to issue to their local military hospitals and to their local ARP organisations such part of their work-party output as could be absorbed by them and to retain the balance until such time as the central organisation directed its allocation.

From 17 June 1942, the date of the first despatch from the Patna depot, until the end of 1942, 182 consignments were sent from this depot, i.e., an average of nearly one per day. Of these 34 consignments were sent to the depot at Gauhati and 148 to 43 different medical units, including hospital ships and trains. This involved the packing and handling of some 1,400 outgoing packages.

During 1942 the provincial and state joint war committees gave great help to the central organisation as a whole in dealing with the difficult situation which had arisen. In the east the Assam, Bengal, Bihar and the United Provinces committees had a very heavy strain placed on them owing to the flow of casualties from Burma, and they did splendid work. The Bengal committee helped the organisation by purchasing stores in the Calcutta area and forwarding them to Assam since the demands on the United Provinces and Bihar committees for Red Cross supplies for Assam were very large. In the west the Bombay committee had extremely heavy duties to perform in connection with the supply of stores to the large war hospitals formed in Bombay and on the ghats around Poona, Kirkee and Deolali, whilst the Sind committee had to look after the large war hospitals in Karachi. Moreover, both these committees were also helping to supply hospital ships with Red Cross supplies and comforts. In the north, the Punjab committee undertook to give full Red Cross service to all military hospitals in its area ; this was of the utmost assistance in view of the large number of military hospitals which were receiving casualties from the various war areas.

The Australian Red Cross Society came to the assistance of the organisation, at a time when it was not easy to obtain supplies, and provided foodstuffs such as tinned fruit, patent foods, jams, etc.

An important and valuable concession to the organisation was granted by the Government of India in December 1942, when, as stated earlier, it was decided that essential stores imported for the joint war organisation should be exempt from customs duties on a certificate from the Red Cross Commissioner or a deputy at the port of entry.

By the end of 1942, depots had been established at New Delhi, Bombay, Secunderabad, Calcutta, Sialkot and Gauhati. The sub-depot at Patna was closed, as the need for it no longer existed. During April 1943, a sub-depot was opened at Dacca where good accommodation was obtained. The Gauhati depot was considerably enlarged in the same year and an advanced sub-depot was opened at Imphal ; from these two depots all hospitals in the Assam area were well supplied with standard Red Cross items and many others which added to the comfort of patients.

During 1943, many of the larger provinces set up their own depots for the supplying of medical units within their own areas, and, where necessary, assistance towards stocking them was given by the central organisation

The year 1944 saw a great development in the stores side of the organisation. A notable feature of the year's work was the great increase in demands for comforts from the units for which the organisation held itself responsible. This resulted in a vastly increased procurement programme and the central purchasing organisation had to explore every possible source of supply.

In addition to the regular servicing of hospitals and other medical units, there was at that time an extension into new fields, among which was the formation of mobile field stores units. In addition to these units, the stores department was occupied in the preparation and despatch of (i) 'Unit packs', which were prepared in separate Indian and British packs, to contain a supply of comforts sufficient for one month for the sick and wounded of one brigade, (ii) 'aeroplane packs' for Indian and British troops, containing specially chosen comforts for sick and wounded transported by plane, and (iii) 'individual toilet bags', prepared for the comfort of sick and wounded when in transit. Gift parcels for recovered POW were another matter of interest to the department and many thousands of these were prepared.

Considerable additional storage space was obtained during 1944, although still more was required both for the large depots and the sub depots and dumps. The number of depots under the joint war organisation at the close of 1944 was six central and six provincial depots. A sum of Rs 40,99,189 was expended on the purchase of stores during the year.

May 1944 saw the publication of a *Revised Stores List*. This was prepared after considerable thought, but shortly after its issue it was found that the stores section had incorporated so many additional items into its stores that the list was already out of date.

In view of the greatly increased activities of the stores side it was necessary to expand its staff. In September 1944, Mr T P Cowie took over the post of director of stores, left vacant by the death of General Marshall.

In the year 1945, the activities of the stores section reached their highest level. The calculation, purchase and storage of vast quantities of stores for the 200,000 beds served by the organisation, the re-adjustment necessitated by VE and VJ Days, the rush to relieve RAPIVI and the extension of activities into new fields in South East Asia, all contributed to make the year one of great stress and strain. The considerable strengthening of the stores section in the autumn of 1944 was barely in time to meet the crisis of 1945, while the provision of adequate personnel, storage accommodation and the stores themselves, all presented serious problems, which were overcome only with great difficulty. The number of depots administered by the Indian



war organisation, which was 13 at the end of 1944, rose before the end of 1945 to 19, to which should be added 6 joint SEAC Red Cross depots administered by Indian Red Cross officers. The total floor area of depot accommodation in India at the end of 1945 was 174,757 square feet and some idea of the increased activities of the stores department can be gained by an examination of the figures relating to the cost of stores purchased in each of the war years, which is shown below in rupees :—

1940	..	..	..	..	13,756
1941	...				4,20,716
1942		.		.	14,67,834
1943	..	..	.	.	28,57,078
1944	..	.	.	.	40,99,189
1945				.	1,17,67,570

The coming of VJ Day changed the whole outlooks and, paradoxically enough, increased very greatly the work of the stores section. It was necessary immediately to cancel or curtail large outstanding orders for stores, while emergency measures had to be taken to provide comforts for RAPWI, both on their recovery in the overseas areas of SEAC and on their arrival in India. This necessitated the purchase, packing and despatch of large quantities of personal items, which was only accomplished through the magnificent response of voluntary workers in the provinces and states.

In view of the cessation of hostilities in the west early in 1945, certain depots in that theatre became redundant and the Baghdad depot closed on 7 June 1945, the Bari (Italy) depot on 31 December 1945, and the Basra depot on 31 March 1946.

In the SEAC area the Indian organisation contributed to the common cause some 2,750 tons of stores, in which figure are included three field service units, each of which was capable of servicing 15,000 beds for three months. These units were complete in themselves with the necessary supplies, personnel and motor vehicles. Over and above this, relief was given to distressed civilians in released territories, for whom 100,000 sets of Indian-type women's and children's clothes were donated as well as 100,000 *dhoti* pieces and a large quantity of blankets. A small stores depot, with a stores officer and subordinate staff, was sent with the Indian Red Cross civil relief unit to the Andamans at the end of 1945.

The year 1946 saw the beginning of a retrenchment which is clearly illustrated when the sum of Rs. 11,767,570 spent on stores in 1945, is compared with the sum of Rs. 35,52,622 spent in 1946. At the commencement of the year the question of disposing of surplus stocks was taken up with the Government of India's Director General of Disposals, who very kindly agreed to act as honorary adviser to the war organisation.

Directions were issued from time to time to all depots covering the disposal of surplus stores. Retail shops were opened at the depots and, thanks to the assistance of voluntary woman workers, proved



Up to the evacuation of Dunkirk and the collapse of France in May/June 1940, the problem of POW had hardly effected India. When it did the organisation was uncertain what to do, but fortunately full details were given in the monthly *Summaries of Work* which were published by the British war organisation in London ; and the first action of the Indian organisation was to issue to branches, in August 1940, a short note on *How to write to a POW*. Before, however, any action could be taken to publish instructions on this subject, permission had to be sought and obtained from various departments of the Government of India.

It was from these *Summaries of Work* that information became available concerning food parcels which were being packed in London by the British Red Cross for despatch to POW in Germany ; and in August 1940, the Indian organisation asked its representative at the India Office to arrange for food parcels to be sent to Indian POW in Germany. For this purpose a sum of Rs. 50,000 was placed at his disposal as an initial instalment. He undertook the work at once and a standard parcel was laid down, the contents of which were designed to supply those articles of nutritive value which were lacking in the German rations and included such articles as biscuits, chocolate, salmon, sugar, margarine, *atta*, *dal*, rice, curry powder, etc. Some delays occurred, however, in the despatch of these parcels owing to lack of information as to the camps in which the Indian POW were interned , but as soon as this was received the food parcels were sent regularly.

Once the packing centre in London was organised, the number of parcels despatched increased gradually from an average of about 250 parcels a week to over 20,000 a week. This work was carried out mainly by unpaid workers, including the wives of officers of the Indian Army. During 1942, 5,44,000 food parcels were sent to Geneva at a cost of £2,72,000 or Rs. 36,00,000.

*Clothing* : In addition to the clothing supplied by the War Office through the British Red Cross, the Indian comforts fund in London provided periodical next of kin clothing parcels for every Indian POW in Europe. The despatch of these parcels was undertaken by the Indian comforts fund in view of the distance of the men from their home-country and the fact that many of their relatives were not in a position to supply them. The parcels contained such useful items as a treasure bag, towels, slipover, vests, etc. In 1942, 23,000 such clothing parcels were sent to Geneva.

*Amenities* : To the prisoner encompassed by the wired walls and machine-gunned towers of the camps, whose sole means of escape from the monotony of camp life lies mainly in his ability to pass his time in activities that allay home-sickness and boredom, the organisation sent such items as books, games and musical instruments. Books were the most popular item and the problem of their supply was a very arduous one.

Large quantities of sports gear were also supplied and quarterly consignments of special indoor Indian games and Indian musical

instruments were despatched to London and forwarded from there by the Indian comforts fund. Many hundreds of gramophone records in Indian languages were also sent.

*Movement of Prisoners* With the Allied invasion of Italy, most Indian and British POW held in Italy were moved towards Germany, but with the capitulation of Italy many were able to escape and either joined the advancing Allied forces or escaped to Switzerland. It was some little time before the location of the camps of those transferred to Germany was reported through Geneva.

This large scale movement of prisoners into Germany resulted in overcrowding in the existing camps in that country, malnutrition and a temporary shortage of Red Cross food and clothing. A stoppage of the regular flow of food parcels brought about by the rupture of German communications added further to the food shortage. The situation, however, was kept within control. The weight of the food parcel was temporarily increased to eleven pounds and before the opening of the second front in June 1944, the average number of food parcels at POW camps was sufficient to last for eight weeks, and in addition there was a further food parcel reserve at Geneva, the International Red Cross Committee (IRCC) holding a reserve of 179,705 while more were in transit. It became known about the beginning of 1945 that conditions in the German camps had much improved.

Figures received from the Indian Comforts Fund indicated that, during the year 1943, 637,002 food parcels were despatched from London to Geneva and that, during the period 1 January 1944, to 30 September of the same year, 382,588 parcels were packed. The number of food parcels packed and despatched to Indian POW in Europe during 1944 varied from 10,000 to 20,000 per week. The number of next of kin parcels (for which the Indian war organisation accepted responsibility for the whole cost) despatched during the year 1943 was 21,572, while a further 18,720 were packed from 1 January to 30 September 1944.

With the Allied advance through France the problem of released POW had to be considered, for once a prisoner is released he becomes the responsibility of his own government. Accordingly the Indian Red Cross and St John War Organisation held itself responsible for the welfare of those Indian ex-POW who were not fit, and for the issue of comforts to recovered Indian prisoners during their transit to India. Recovered POW were warmly welcomed during the various stages of their journey back to India, and on arrival there Red Cross comforts were provided and, where possible, means for their recreation arranged.

Co-ordinated arrangements were completed whereby each recovered Indian POW received, on his arrival at a staging camp in Europe or in a hospital in Allied hands, a suitable food parcel and a gift bag containing toilet outfit, chocolate, fifty cigarettes and a Red Cross goodwill message. In addition, a bulk supply of Red Cross

clothing, including pullovers, pyjamas, slippers and socks was made available at each staging camp as transport facilities permitted.

In the United Kingdom comprehensive arrangements were organised on similar lines. Tours and entertainments were also arranged for the men during their period of stay in the United Kingdom. To all Allied POW who escaped into Switzerland, the IRCC extended its humanitarian service and also introduced a special card index for the 'interned military', 'escaped POW' and 'civilian refugees', dealing with all enquiries regarding persons falling into these three categories. By early June 1945, approximately 9,460 Indian POW had arrived in the United Kingdom on their way to India. The majority were found to be in a satisfactory condition.

With the release of the Indian POW in the west the need for the packing centre in London, which was run by the Indian comforts fund, ceased, and it was closed in May 1945, after having been in existence from February 1941. During the period of its activity the expenditure incurred on behalf of Indian POW in Europe totalled one and a quarter crores of rupees.

*In the Far East* - With the entry of Japan into the war in December 1941, the care of POW in the Far East had also to be taken into account. The Japanese Government which had not signed the Geneva Convention but had promised to follow it in essentials, failed to provide information, and unfortunately very little was known about the majority of Indian POW in the Far East in spite of constant and strenuous representations to the Japanese Government through the Protecting Power and the IRCC. At first a number of names of British and Imperial prisoners were received, but no Indian names were received. A few names, however, of prisoners in Hongkong, Shanghai and Bangkok later came to hand. It was thought that there were about 70,000 Indian prisoners and in addition a very large number of British and Allied subjects (Indian, European and Asian) in the occupied territories who had to be considered when Red Cross assistance was planned.

Little was known about camp conditions in Malaya but considerable disease and distress were reported about the end of 1942 amongst POW and civilian internees in Hongkong. There can be no disputing the fact that the food situation as regards British and Allied prisoners in Japanese hands was unsatisfactory. It was believed that the food issued to POW was the same in quantity as that issued to Japanese depot troops, but this was inadequate for the needs of Allied troops, especially those who were required to work for long hours. The majority of reports received about that time referred to European POW and, in spite of efforts made by the Indian war organisation to ascertain conditions of Indian POW, the information received was very scanty.

To alleviate the lot of the Indian civilian internees and their dependents and the POW in Hongkong, the Viceroy contributed a sum of Rs. 10,000 from his war purposes fund to be placed at the disposal of the IRCC delegate in Hongkong. At the same time the

British Government placed £10,000 per month at the disposal of the IRCC, Geneva, to be used where possible, for the purchase locally of medicines, clothing etc. Money was also placed at the disposal of various missionary societies for the alleviation of conditions in all camps.

In August 1942, it was arranged that two Anglo-Japanese exchange ships should leave Lourenco Marques, and these carried approximately 6,000 tons of medical stores, comforts etc. Of these 3,000 tons were unloaded at Singapore and another 1,000 tons at Hongkong, the balance being distributed among Allied POW elsewhere in the Far East.

In spite of financial limitations which, at one time, appeared insurmountable the Indian Red Cross carried out its activities during 1942 to the fullest extent, spending on POW in the Far East during this period a sum of Rs 13,50,000.

Conditions in regard to prisoners in Japanese hands up to the end of 1942 were so unsatisfactory and information concerning them so meagre that a conference was arranged in Washington. The British Red Cross accepted the invitation and their mission, headed by Sir Ernest Burdon, arrived in New York in early September 1943. Sir Ernest Burdon represented the interests of the Indian organisation also. It was recognised that all plans for relief were dependent upon the Japanese Government acknowledging its responsibilities. The conference was a success and the principle was fully accepted that the relief service to POW in the Far East should be a combined undertaking, that it should be operated jointly by the three Red Cross Societies chiefly concerned and based on America. Supplies to all prisoners in the Far East were pooled.

In October 1943, a second exchange ship, the *Tsua Maru* called at Marmagao. This was loaded with Red Cross stores which were destined for Malaya, Java, the Philippines and Hongkong and which had been provided by the British, Canadian and American Red Cross Societies. About forty tons of medicines from India were also included in the cargo. Arrangements had been made to load an additional 1,000 tons from India but cargo space was limited. The Indian war organisation was represented during the course of the operations at Marmagao, ready to render all possible help to the American and IRCC representatives, who were mainly responsible for the successful completion of the exchange operations.

In February 1944, a cable was received from the IRCC, Geneva, that educational books were in demand by POW in this theatre, these were despatched by the Vladivostok route and some of them were reported to have eventually reached the camps.

The Vladivostok route was opened late in 1943, the Japanese Government having agreed that Russian ships could carry Red Cross stores from Canada and the USA to that port. It was originally proposed to send about 1,500 tons a month but this proved impracticable. During 1944, however, two ships left Vladivostok for Japan carrying about 2,000 tons, amongst which were included —

food parcels	° 366,276
medical kits	600
cases of drugs and medical supplies	2,611
cases of shoe repairing materials	125
cases of comfort articles	700
cases of cigarettes	100
cases of YMCA books and recreational supplies; and	299
cases of clothing consisting of 19,500 sets of clothes, 7,080 overcoats and 4,200 pairs of men's shoes.	1,543

The POW camps which benefited from these supplies included those in Kobe, Taiwan, Hongkong, Canton, Burma, Malaya, Borneo, Java and Sumatra.

Food parcels were also despatched by the Vladivostok route during the year 1944. These were packed in Canada and included a large number of Indian food parcels containing *atta*, *dal*, rice, curry powder, salt, margarine, vegetables, salmon, sugar, tea, milk, fruits, biscuits, chocolate and soap.

Early in 1945, prisoners were reported to have been moved in large numbers from the southern to the northern Japanese occupied areas, which were less open to Allied attack ; but, as the Japanese military position deteriorated, the treatment of the prisoners improved generally and in June 1945 it was reported that the IRCC delegates had been permitted to visit all camps, including those in the southern areas. These visits showed that conditions in the camps varied greatly over the vast areas in the east, but prisoners in the camps in northern areas were reported to be more fortunate than their colleagues in the camps in the southern areas ; in all camps there was an absence of adequate medical service.

The sudden surrender of the Japanese completely changed the situation and plans which had been made for long term hostilities had to be changed drastically. A detailed report on the activities which took place in connection with the release and repatriation of these men is included under the heading of RAPWI.

#### ENQUIRIES REGARDING MISSING PERSONS AND PATIENTS IN HOSPITALS

*Searcher Organisation* · Under the Geneva Convention it is the specific responsibility of the hostile government to furnish information as to where prisoners have been sent and to produce lists with full information. The responsibility for tracing the missing remains with the government departments concerned, but one of the more important tasks that fell on the Red Cross organisation in the recent war was to help the service departments to relieve the anxiety of wives, mothers and next of kin.

The Indian Red Cross mail-bag included many enquiries about persons missing or missing believed POW, and it tried to trace the missing persons by every means in its power, including enquiries through the IRCC, Geneva. Capture cards, which the men sent to their next of kin, proved most helpful, but often no capture cards were sent and the delay in receiving news caused many thousands of anxious relatives and friends to wonder if everything possible was being done.

There were two aspects of this work—looking for those who were really missing from a theatre of operations, and those who were sick or wounded and temporarily missing on account of their rapid transfer from one hospital or camp to another. With regard to the latter, the next of kin often wrote for fuller details of their condition than the hospital authorities normally give.

The larger problem was the search for those who were definitely missing and of whom there seemed to be no trace. There were many difficulties in this connection, the chief being that about half of the men who fought in Malaya and Burma were not on any Indian recording system, so that no authority in this country had any idea as to who was missing or from what unit. As the war organisation was responsible for all non regular Allied units, it found itself involved in the search for all sorts of civilians who had joined up in local corps, hurriedly formed as the actual fighting in Malaya and Burma began. It also had to look for men from the Dominions and free Allies from Holland and Norway. The searchers were instructed to visit military hospitals and convalescent depots located in certain Red Cross areas and interview sick and wounded personnel who had been serving in the same unit as the missing men. Any useful information gleaned was reported to headquarters, which cross-checked it by another agency whenever possible, and details were only passed on to the enquirers when they were considered absolutely authentic.

To ensure that no delay occurred at the headquarters of the war organisation in passing news on to relatives immediately it was considered authentic, a comprehensive card index system was organised. This covered enquiries about persons of all categories, e.g., civilians, army and air force personnel, merchant seamen, etc., scattered all over the world, each category having its own distinctive colour.

The searcher section also undertook to cover the question of progress reports, i.e., sending reports concerning sick and wounded men in hospital in India to the next of kin, and in this way often relieved the anxiety of the enquirer.

This section, which came under the welfare department of the war organisation, continued in existence until the end of January 1946, when, its main duties having been completed with the liberation of the men who had been prisoners, the small amount of residual work was taken over by the welfare section.

*Communications with Civilian Internees* Soon after the beginning of the war the question arose concerning correspondence with the relatives in hostile countries, and it was hoped it might be possible to



introduce in India a scheme of the Red Cross postal message service. Various difficulties arose, however, and this project was temporarily dropped when an alternative method of correspondence through the medium of Messrs. Thomas Cook & Son Ltd., was introduced in July 1940. In the meantime, with the extension of the German occupation, the matter of communications was becoming more urgent, especially after the occupation of the Channel Islands. Finally, in December 1940, permission was obtained from the Government of India to introduce an Indian Red Cross postal message service, by which messages of twenty-five words could be sent to relatives in hostile countries *via* Geneva.

By the end of 1941, over 1,300 messages had been sent from the bureaux at Bombay, nearly 600 from Calcutta and over 200 from Madras. The countries to which such message could be sent included Albania, Austria, Belgium, the Channel Islands, Czechoslovakia, Denmark, Germany, Occupied France, Holland, Yugoslavia, etc. Postal messages from most of these countries were received at central headquarters from the IRCC, Geneva, in large packets and distributed to the addressees in India, Burma, Ceylon, Hongkong and Malaya. Over 1,800 such messages passed through headquarters in 1941.

During 1942 the postal message service was extended to the Far East, *viz.*, Japan, Korea, Formosa, Shanghai, Hongkong, Occupied China, French Indo-China and Siam ; but at first the Japanese would not permit its extension to Malaya, the Philippines, the Netherlands East Indies or Burma. At the end of 1943, there were thirty countries to which messages could be sent in eight different languages ; the restriction on the number of languages and in the number and location of the Red Cross bureaux dealing with these messages being due to the difficulty of censorship.

During 1943, about 3,000 postal messages were despatched from the bureaux and 11,000 messages were received from the IRCC, Geneva, for distribution. Replies received to messages sent by the bureaux were sent to the bureau initiating the enquiry for transmission to the original sender.

In August 1944, a new scheme was inaugurated—the express message scheme for POW and civil internees in Europe. This scheme was started by the IRCC on behalf of those POW and civil internees in Europe who had not heard from their next of kin for over three months. The postal message scheme continued to function in so far as the Far East was concerned till the end of hostilities. A very marked improvement was noticed in regard to both postal and cable exchanges with Occupied China in the last months.

In addition to the postal message service, nearly 800 telegrams were sent during 1941 from central headquarters through the IRCC to persons in hostile territory. Most of these were from seamen of Allied nationalities whose ships touched Indian ports, but other persons also used this service. The system of sending cable messages in English and French from India to individuals in hostile countries

continued to prove extremely popular 1,100 cables were despatched by headquarters during 1943, and over 750 were received from Geneva and transmitted to addressees in India

#### RAPWI

The surrender of Japan, in August 1945, completely altered the situation and affected the plans for sending relief to POW in Japanese hands. Plans already made for their reception in India were put into operation, and Regional Red Cross Commissioners all over India were asked to arrange effective liaison with the local military authorities. Within India, at the ports, at the main railway stations, in hospitals and in transit camps, they were welcomed and serviced by Red Cross representatives and St John Ambulance personnel. Other philanthropic bodies, such as the Women's Voluntary Service, the Salvation Army and Toc H, also co-operated wholeheartedly.

Reception arrangements at Calcutta and Madras were particularly good. Separate teams of workers were allotted for the airports, the transit hospitals and the ambulance trains, and, although these workers were sometimes soaked to the skin by monsoon rains or, more often, baked by the sun, they stuck to their posts and helped in serving RAPWI with cold drinks, tea, cigarettes and sweets and in distributing clothing, books and magazines to those in transit hospitals or travelling by ambulance trains. In all, approximately 110 members of the Indian Red Cross Welfare Service, Indian and British, worked for them in addition to large numbers from the St John Ambulance Brigade. These workers also undertook the duties of searching, i.e., tracing missing military personnel by interrogation of their comrades in hospitals, and of progress reports to the relatives of the men just released, letter writing, shopping, teaching of occupational therapy in hospitals, distribution of Red Cross stores and attending to their general care and comfort.

*Overseas* A special temporary sub-commission, headed by a Deputy Red Cross Commissioner, was appointed to work under Advanced Headquarters, ALFSEA. The commission included forward contact parties and a large number of welfare workers, based on Rangoon and Singapore. A small team also proceeded to the Andaman Islands.

In addition, two Indian doctors were sent to Shanghai to render medical aid to the Indian community there. For further relief of these persons a sum of Rs 20,000 was placed at the disposal of the IRCC delegate in Shanghai and a grant of Rs 10,000 was made to provide warm clothing for destitute Indians.

*Stores* The stores included (i) 50,000 garments for Indian nationals in these liberated countries, (ii) 2,000 tons of Red Cross stores for RAPWI, (iii) 60,000 gift bags (containing biscuits, cigarettes etc.), (iv) 4,500 toilet bags, (containing such things as soap, handkerchief, comb, mirror, towel, face cloth, hussif)

for air dropping in Malaya, Siam, Netherland East Indies etc. , and (v) 70 tons of Red Cross stores placed at the disposal of the SEAC, the estimated cost of which was Rs. 75,00,000.

Two field service units worked in Burma and Malaya and a third was sent to the Far East.

#### RELIEF TO ASIAN LABOUR FORCE

Much distress was reported among Indians in the Asian labour force working on the Burma/Siam Railway, which was disbanded by the Japanese. The IRCC delegate there took steps for the relief of these destitute Indians and a sum of Rs. 1,00,000 was placed at the disposal of the IRCC for this purpose

#### SEAC RED CROSS CO-ORDINATING COMMITTEE

The Red Cross co-ordinating committee at Headquarters SACSEA ensured that liaison between the military staff and the Red Cross organisations was effective. On 28 August 1945, Lady Wavell assembled a meeting of Red Cross representatives in the South East Asia and the India Commands in order to report progress and concert plans. The Viscountess Mountbatten attended this meeting as the chief representative of the Supreme Allied Commander.

The Indian Red Cross placed at the disposal of this co-ordinating committee the sum of Rs. 50,000 for expenditure on incidentals and miscellaneous items for persons in liberated countries.

#### ENQUIRIES AND INFORMATION BUREAUX

With the cessation of hostilities in the east the number of enquiries concerning RAPWI increased considerably ; and, to enable these to be dealt with promptly and efficiently, information bureaux were set up, with the co-operation of the authorities concerned, at Calcutta, Bangalore, Kalyan and Madras, and a procedure for the bi-weekly despatch of names and particulars to the various authorities concerned was adopted by the Indian Red Cross POW department at Simla.

#### CIVIL INTERNEES

Civil internees reaching India were given the same Red Cross service as was given to recovered service personnel, and here again, besides providing welfare workers for the civilian camps, the joint war organisation undertook to provide tidy bags, a certain amount of tropical and warm clothing, Red Cross comforts for men, women and children, *e g* , Glaxo, Farex, feeding bottles, napkins, etc., and, when available, special invalid foods such as condensed and dried milk, Ovaltine, Bovril, etc

Clothing for Indian women and children was also collected at Calcutta and Madras, and Lady Wavell wrote to the wives of Governors giving detailed suggestions as to how local joint war committees could assist in providing Red Cross service, including clothing for recovered civilians. Response to this appeal was most gratifying, and work parties all over India busied themselves making garments for Indian nationals who had been resident, though not interned, in Japanese occupied territories.

#### WELFARE

Prior to 1943, all forms of welfare work for the sick and wounded in hospitals were undertaken by voluntary workers, some of them members of the St John Brigade but more of the Women's Voluntary Service, but it was then realised by the organisation, and agreed to by the military medical authorities, that something more systematic and professional was needed. It was, therefore, decided, early in 1943, to form a Red Cross hospital welfare service of trained and paid workers to supplement the work done by voluntary workers and to provide a welfare service in areas where such voluntary workers were not forthcoming. Much pioneer work had been undertaken by the Bengal branch, which had already started its own service. Brigadier Howard was appointed, in November 1943, to organise a central service. He completed the scheme early in 1944, by which time three experienced welfare officers borrowed from the British Red Cross joint war organisation had arrived to help with its administration and training.

The Indian Red Cross welfare service commenced recruitment in March 1944, membership was open to Indian and British women, and, though the service was civilian in character, its members were given officer status to facilitate their movement in operational areas and their residence in nursing sisters' messes. Membership was open to foreigners also but their appointments were notified only after special enquiries and with the permission of the Defence Department of the Government of India.

There were originally two categories of these workers (i) general service members engaged on a salary of Rs 200 per month, plus Rs 30 per month overseas allowance and free accommodation. These members were to serve in any area in which the joint war organisation operated, (ii) local service members engaged on a salary of Rs 150 per month with no accommodation or messing allowance. These members were to serve full-time in the station of their ordinary residence.

The lack of trained instructors at first handicapped the training of those selected, and a training course for instructors was, therefore, held in Calcutta, where intensive training covering six weeks was given. From this course six instructors were obtained to run training courses for recruits at Bangalore, Dinapore, Shillong, Dehra Dun,

Madras, Secunderabad and Lucknow. Headquarters staff officers visited these schools and lectured on special subjects.

Later on, a central training school was established with Miss S. B. Rustomjee in charge, in St. Mary's Home, Bangalore, and all general service members who were proceeding overseas were trained at this school. General service workers were posted mainly outside India, first to the Fourteenth Army area and then to SEAC where they served in Malaya, Java, Sumatra, Batavia, Rabaul and Burma. One team of four, under a staff officer, proceeded to the Middle East at the beginning of 1945 and another to Iraq-Iran about the same time.

The welfare service spread rapidly in all provinces and, in June 1944, members of the United Provinces ladies war work committee welfare service were registered with the Indian Red Cross welfare service. The largest number of local service members was recruited by and served in the United Provinces, with Bangalore, Bombay and Madras following in that order. The Bengal branch preferred to continue its own welfare service but their workers often attended the central training school and took advantage of lectures arranged for central workers. No local service welfare workers were, therefore, posted to Bengal.

The service undertook every type of welfare considered desirable in hospitals, which included occupational therapy crafts, store-keeping, supervision of libraries, letter-writing, shopping, searching for wounded and missing, and progress reports. The United Provinces had successfully inaugurated kitchen supervision as part of its welfare duties, and the centre later decided to recruit special welfare officers to be trained in kitchen supervision for posting to hospitals in the India Command only. Five such training courses were held at the IMH and BMH Lucknow, and forty central welfare workers attended these; they were then posted for these duties only, as it was found to be a full-time occupation; it proved to be most effectual in raising the standard of cooking and serving meals for hospital patients. The kitchen supervisor course was of three weeks' duration. Training was given by trained members of the WAC(I) and other women workers. A special course of invalid cooking was a part of the general training course.

In February 1945, Lady Hutton was appointed Director of Welfare *vice* Brigadier Howard. She toured frequently and the service quickly expanded in all directions. It was also early in 1945 that the new category of workers *i.e.*, the local out-station workers, was introduced. The reason for its inception was that it was found increasingly difficult to recruit local service workers for all the localities where military hospitals were situated and that general service members could not be spared for hospitals within the India Command. They were given a special out-station allowance of Rs. 2-8-0 per day and permitted to live in the nursing sisters' messes if they were unable to find other accommodation. This new category proved successful and popular and was very useful for outlying hospitals.

In July 1945, a further category was introduced into the service, *i.e.*, men welfare workers, as it was felt that they would be able to undertake certain duties and go further forward than would be possible for the women members of the service. They were recruited too late, for the unexpected surrender of the Japanese came in August 1945, before these men could reach their forward hospitals, and some were still at the training school and did not proceed overseas at all. Those who did, gave excellent service, especially in Batavia and the Tamil camps. Their help was eagerly sought as store keepers. The remainder stayed at Bangalore and were of great assistance to the returning POW until the rush was over, when they were released from the service. Two of the men posted overseas were awarded the Red Cross Silver Medal by the French Red Cross.

The total strength of the Service at its maximum was —

General service workers	170
Local service workers	285
Local service outstation workers	39
Men welfare workers	17
Total	<hr/> 511 <hr/>

Of these, 55 general service officers and 138 local service officers were Indians or Anglo Indians. In addition 15 staff officers were employed in the regions to administer the working of the welfare service.

In December 1945, when the rush of RAPWI was over, and the bed strengths of hospitals were commencing to diminish, plans were made for the reduction of the welfare service. The first members whose services were dispensed with were those working as kitchen supervisors, and they were followed by those officers who were working as store keepers or librarians without any other duties. Later, the local service workers were given notice and by 30 June 1946, no members of the welfare service were employed in India. The staff officers serving in the Middle East were withdrawn and those members of the service who were still in that theatre were looked after by the British Red Cross.

In March 1946, however, a request came for welfare officers to be sent to Japan with the Indian contingent of the British Commonwealth Occupation Force which was proceeding to that country. Four welfare officers were sent under agreement to serve in that theatre for one year. One of these officers unfortunately died as the result of an accident.

The systematic organisation of a personal service to patients in hospitals was a comparatively new idea, which first reached the committee in 1942 from brief accounts of what the British joint war organisation had begun doing in the Middle East. Individuals had, of course, in India as elsewhere, been visiting from early in the war the sick and wounded, writing letters for them and distributing Red

Cross gifts, books and periodicals, and had realised that patients could be definitely helped towards recovery if they were given simple handicrafts to divert their minds from their physical condition. The problem was to select a handicraft for each patient that would both interest him and be within his capacity, and to find the materials and persons qualified to teach the patient how to use them. This work was particularly suitable for women belonging to the Red Cross organisation, but at the time, for reasons explained in the section dealing with the St. John Ambulance Brigade, these were scarce and badly distributed and many of them were reserved for work under ARP schemes. With the committee's approval, therefore, the commissioner addressed all branches in May 1942, suggesting that they should enlist the help of the more numerous and widely distributed Women's Voluntary Service for this work and promising to allot funds for handicraft materials if the branches were unable to meet the cost themselves.

During the next eighteen months, however, it was found that, while members of the Women's Voluntary Service had done much valuable work in stations where they were numerous and strong, there were many other stations where voluntary help of this kind was unobtainable and others again where it flourished in the cold weather but languished for want of workers in the hot weather when it was most needed. Moreover, the handicrafts taught were apt to vary from hospital to hospital according to the special aptitudes of the teachers, and patients transferred from one to another suffered from this lack of continuity. In short, something more than the part-time voluntary worker was required. In September 1943, therefore, the committee accepted the principle of appointing salaried women as welfare workers in hospitals to co-ordinate and maintain continuity of effort, and in December, after full discussion at the Red Cross conference in the previous month, it approved a draft scheme for a professional welfare service, trained in a variety of duties, of which the teaching of handicrafts on uniform lines was only one. The range included also Red Cross store-keeping, libraries, searching for missing, progress reports to relatives and kitchen superintendence.

#### OVERSEAS COMMISSIONS

*Middle East* : The need for a commission to cater for the Indian Expeditionary Forces in Africa and the Levant was realised early in 1940, and in August Colonel Sir Richard Needham took charge as commissioner in Cairo. He was told that he would be commissioner for the whole of the Middle East and not for Egypt alone—a fortunate decision as otherwise there would have been no one to advise about requirements for the Sudan and, later, the rest of North Africa, Italy, Greece, Palestine and Syria. He was given a free hand and instructed to build up a six months' reserve of Red Cross stores for the Middle East, obtaining what staff and stores he could locally and the rest from India.

His first indent confirmed the committee in its opinion that it must set up a central stores organisation in India for the collection and despatch of Red Cross stores to overseas forces. He asked, too, for three assistant commissioners, two for Egypt and one for the Sudan, as well as for store-keepers and clerks. The selection of personnel was a difficult and slow business, and delays followed over their passports and passages, but eventually the store-keepers and clerks arrived in December 1940, and two assistant commissioners, Lieut-Colonel Middleton West and Mr Asghar Ali Khan, in February 1941. Colonel Needham also experienced difficulty in the matter of transport, but the American Red Cross generously presented him with a station wagon. Early in December 1940, he visited Khartoum and made arrangements for starting his organisation under Dr Macleod of the Sudan Medical Service as an honorary Deputy Red Cross Commissioner. The administration there worked excellently and stores, including fresh fruit, arrived satisfactorily, with the help of the Sudan Medical Service transport.

By 1942 all the Indian hospitals and convalescent depots in the Middle East had been provided with some form of Red Cross transport, and occupational therapy had been started experimentally under the aegis of the Indian Red Cross in an IGH with one voluntary worker during the year. In February 1945, two teams of trained welfare workers arrived from India to fill a long felt want in the hospitals in the Middle East, Persia and Iraq and Central Mediterranean Forces. The workers were posted to the various combined and Indian hospitals in these Commands and received a warm welcome. Occupational therapy was at that time a comparatively new type of work and the task of developing it was uphill at first, but the welfare workers spared no pains to interest the patients in all kinds of handicraft. By December 1945, reports from all units showed that the patients had taken whole-heartedly to these activities, and this was amply borne out by a display of handicrafts by Indian patients which was held in Cairo in December of that year.

The commission had also to meet all batches of repatriated Indian POW from Italy when they landed in Alexandria in the early summer of 1943. Each man on arrival was given a comfort bag containing cigarettes and Indian sweetmeats. In November 1943, ships arrived in Alexandria with the first Indian, Australian and New Zealand POW repatriated from Germany. Over a thousand men, about half of them suffering from wounds and sickness, were met by the Red Cross representatives, who accompanied the Indian party on its journey through Egypt.

Indian ex-POW numbering 1,198 who had escaped from prison camps in Germany or Italy passed through the Middle East on their way back to India late in 1944. Each party was welcomed on arrival in Egypt.

Two months later the increase in the number of Indian medical units in Italy necessitated the opening of an Indian Red Cross depot at Bari, with a forward sub depot later in Rome. Colonel G V



Comyn was transferred from India to take charge in Italy at the end of March 1944.

With the advance of the Allied forces into Europe the need for the Bari depot ceased and this was closed in December 1945. On the return to India of Colonel Weir in July 1945, Brigadier Hildick Smith took over until the arrival of Colonel R. R. L. Thom. Early in 1946, the Persia and Iraq Force commission was amalgamated with the Middle East commission, and continued in operation until the end of May 1946, when Indian Red Cross commissions in the West were finally closed, welfare officers only remaining with their hospitals until these closed or returned to India, stores or cash for their purchase being sent from India as required.

*Iraq-Iran* : The necessity for providing an Indian Red Cross commission for Iraq and Persia was suddenly realised by the joint war organisation early in 1941, at a time when it was already busy with the requirements of the Middle East and the expansion in Malaya. There were two urgent problems to be tackled, firstly to get some Red Cross stores to Iraq without delay and secondly to get a Red Cross Commissioner for the new theatre. The first was the easier task, as by then a reserve of work-party products had been stored in Bombay ready to be sent anywhere and a good many other stores had also been collected in the central depot at New Delhi. An initial supply of stores was sent at once to the DDMS at force headquarters and a small advance of money from the Red Cross war fund to meet any urgent local expenses. The problem of obtaining the services of a suitable Red Cross Commissioner was more difficult ; and, although the necessity one arose in April 1941, yet it was not possible to send him until September 1941.

In the meantime Lady Ward, wife of Sir John Ward the Director of the Port of Basra, offered to give all the help she could, an offer which was gladly accepted, and her work for the organisation as an honorary Red Cross Assistant Commissioner was of the utmost value. Through the kindness of Sir John, a part of a warehouse on the wharf at Basra was lent as a Red Cross office and stores and fitted up by the Military Engineering Service.

Colonel S. M. Cookson, late RIASC, reached Basra as Red Cross Commissioner in October 1941. After extensive touring he decided to form a store depot at Baghdad and add to the office and store accommodation in Basra lent by the port authorities; and in this the GOC, L of C, proved most helpful. In October 1941, in response to an offer from the British joint war organisation, the committee gratefully accepted a grant-in-aid of £25,000 and the addition of two assistant commissioners from the United Kingdom.

During 1942 the headquarters of the commission in Iraq was moved from Basra to Baghdad. In April 1942, thousands of Polish refugees from Russia began to arrive in Persia and to pass slowly down the line from Teheran to Basra. Their plight was serious and the joint war organisation gave Red Cross service to those admitted to

military hospitals along the route. Co operation with the American Red Cross in Teheran was also arranged.

Mention may here be made of two events, one the organisation of a Red Cross week in Baghdad, Basra and Abadan in April 1943, which brought a sum of Rs 2,75,186, the second the establishment of the Red Cross convalescent home for officers at Baghdad in December 1943, which remained open until 10 November 1945.

During 1945 the activities of the Iraq-Iran commission dwindled and in May of that year the depot at Baghdad was closed and all stores transferred to the Basra depot. Later this commission was amalgamated with that of the Middle East, which finally closed on 31 May 1946.

*Malaya* The need for a Red Cross commission in Malaya was met in March 1941, by the appointment of Major-General I M Macrae (late IMS) as commissioner. He had to build up his whole organisation from the beginning, though he took with him from India an initial consignment of Red Cross stores. His first problem was to find accommodation for his office and stores and to recruit an establishment for both. After consultation with the medical and administrative authorities he decided to make Singapore his headquarters, though later he formed forward depots on both the eastern and western routes on the mainland.

Ambulance transport was a difficulty, especially as forward field ambulances were split into a number of widely separated detachments. In June 1941, however, General Macrae succeeded in getting four ambulance chassis from a firm in Singapore and had bodies built for them.

With the assistance of the representative of the Australian Red Cross arrangements were made for an advanced depot of Red Cross stores to be set up at Taiping in September 1941, and in October 1941, for another in the north-eastern area of the Peninsula.

Just before the first Japanese attack General Macrae reported that there was a heavy demand on his stores for surgical dressings, bandages and ward items generally, especially as he was required to fit out some newly formed Malayan medical units and hospitals, and he advised headquarters that he could never have too large a supply of these essential items. The first Japanese attack on Singapore on 8 December 1941, was described by him as "a bit of a jolt" when some bombs fell near his office and stores splintering glass and bringing down part of an asbestos ceiling of the store. Thenceforth, he and his staff were kept busy, especially in carrying stores to units.

The final letter from General Macrae was dated 21 January 1942, and no further communications were received from him as he and his staff were taken POW by the Japanese. He remained in Japanese hands until after the surrender of Japan in August 1945.

*SEAC* Until the end of 1944, the central deputy, and later the eastern regional commissioner, had given service to SEAC from the headquarters in Calcutta, but with the rapid advance of the Allied

## ADMINISTRATION OF MEDICAL SERVICES

ps into Burma, a separate commission became increasingly ssary.

To this new commission Colonel Bijetindra Basu was appointed deputy commissioner in February 1945, with Miss Shepherd s and Mr. Wootton as assistant commissioners. Colonel Basu promoted to commissioner and his two assistants to deputy missioners in November 1945. Their headquarters was with the anced Headquarters ALFSEA, first at Barrackpore and next at dy ; and it was expected that this commission would cover, in tion to Burma, Malaya, French Indo-China, Netherlands East es, Siam and Hongkong.

As the Fourteenth Army operations extended into Burma nced sub-depots were established in the immediate rear of the repying forces from Imphal onwards until Rangoon itself was upied at the end of May 1945.

Meantime plans for re-taking Malaya and the Far East were g co-ordinated at Kandy and Red Cross representatives worked lose touch with DMS, SACSEA, who arranged for the move ard of the Red Cross mobile field units. No. 1 Indian Red s Field Service Unit, consisting of a mobile light section and two y sections capable of servicing 15,000 beds, formed the depot angoon.

In April 1945, a Red Cross co-ordinating committee, embodying esentatives of the Indian, British and Australian Red Cross, was ed at Headquarters SACSEA in order that Red Cross work ut in future be integrated in operational planning, and that the urces of all the societies might be pooled. Representatives of the na Red Cross and of Allied countries attended its meetings by ation. Stores were held at Madras for the Indian Red Cross at Avadi for the British and Australian Red Cross Societies. The Cross commission attached to the Medical Directorate ALFSEA e under the co-ordinating committee for implementation of the Cross policy. SEAC Red Cross, as the combined undertaking me known, moved its headquarters from Kandy to Singapore in ember 1945, and thereafter operated from there.

Under the SEAC commission a sub-commission was established urma, with its headquarters at Rangoon, which continued until ust 1946, when Colonel Basu resigned.

## GROWTH OF THE REGIONS

Although the germ of the regional idea was latent in that portion he 'Mobilisation Plan' which provided for an assistant com- ioner at the headquarters of each command in India, it was not l the spring of 1944 that the first two regional commissioners mne were appointed for the east and the south of India respectively, a wide delegated powers, both financial and administrative, over- central personnel within their areas and with instructions to

establish official and personal contacts on the one hand with the headquarters staffs of the armed forces and on the other with the branch committees, and to correlate accordingly demand and supply of Red Cross service within their regions

Up to that time the central organisation had been administered as a unit from Delhi/Simla, although it had many unsystematic contacts with the commands and branches both through the commissioner's tours and the central outposts in the form of officers mainly concerned with stores. For instance a central Red Cross assistant (later deputy) commissioner was appointed to Bombay as early as January 1940, with an establishment of his own to deal mainly with overseas needs. He also continued, in an honorary capacity, to be the secretary of the Bombay Presidency branch of the joint war organisation and thus served to interpret the policy of the central organisation to this branch.

In 1942, with the threat of a Japanese attack on India, the central committee decided that the time had arrived to appoint its representatives with the Eastern and Southern Armies and a deputy commissioner (stores) was, therefore, appointed to the Eastern Army on 12 March 1942, with his headquarters at Patna, and with an assistant commissioner in Gauhati for the Assam area. Shortly afterwards a deputy commissioner (stores) stationed at Secunderabad was similarly accredited to the Southern Army.

The chief commissioner, touring extensively through the India Command and the Fourteenth Army area early in 1944, realised that it was essential for headquarters to be in much closer touch with the branch committees and with the field commissions. He recommended to the central war committee that India should be divided into five regions, the Southern, Eastern, Western, United Central and Northern. The committee accepted his recommendation, and the first region to be established was the southern, with its headquarters at Bangalore, Sir Guthrie Russell being appointed as regional commissioner on 17 March 1944. Under this region came the central depot at Secunderabad.

Welfare service workers were meanwhile being posted to many hospitals in the southern region and Bangalore was becoming the most important school for the training of these workers. Their general supervision was added to his charge as well as, early in 1945, a new transit depot in Madras.

The first six months of 1945 were largely devoted to the building up of Red Cross hospital supplies and the training of welfare workers to meet the needs of the large number of sick and wounded who were expected to arrive in India when the attack against Japan was launched in Malaya. The new hospital town of Jalahali, near Bangalore, was completed during 1945. It comprised three 1,200 bedded hospitals for Indian troops and one 1,000 bedded combined hospital for Indian and British troops in the eastern area and three 1,200 bedded hospitals for British troops and one 1,000 bedded hospital for Indian and British troops in the western area, giving a total of 9,200 additional beds.

to be serviced by this region. It was, however, arranged that the British joint war organisation should cater for the western area. This expansion threw a large amount of work on the regional office and necessitated an increase of staff.

The eastern region was formed in April 1944, Mrs. R. G. Brown, formerly secretary of the Bengal branch, being appointed as regional commissioner. By the end of 1944, there were four sub-depots under the control of this region, each holding supplies ready to meet the requests of the nearest units of the Fourteenth Army. The central depot in Calcutta held stocks to replenish the sub-depots, as well as for direct supply to units using the sea route from Calcutta.

The western region was formed in December 1944, and took over the depot in Bombay which had existed since January 1940. Major-General C. E. R. Alban was the regional commissioner until its closure in September 1946. Its chief tasks were to supply the large war hospitals near Poona and Deolali, the management of the welfare service there, the handling of the RAPWI traffic through the port of Bombay and the replenishment of hospital ships. In addition, the region arranged for the shipment of consignments to the overseas commissions in the west and the clearance and disposal of inward consignments for the British commission as well as the Indian organisation, and for the outward passages of personnel of the British Red Cross, including the seventy welfare workers lent to the Indian organisation. The remaining stores were entrusted to the Bombay committee for disposal when the region closed finally on 30 September 1946.

The united central region was formed in September 1944, with Miss Sarah Macqueen as regional commissioner, at Delhi, where it remained until its close in June 1946. This region took over the depot at Lucknow, which was originally under the United Provinces, and supplied hospitals in that province.

The last to be established was the northern region and Mr. J. G. Bhandari was appointed as regional commissioner in April 1945. On the setting up of this region Red Cross activities in some of the Rajputana States (*i.e.*, Bikaner, Jodhpur and Jaisalmer) were also transferred to it. Here again the Punjab Red Cross depot, which formerly supplied only hospitals in the Punjab, was taken over by the central organisation and supplies distributed thence to all hospitals within the region.

#### PUBLICITY

Publicity for the joint war organisation was for the first three years carried out by voluntary workers who had some experience of journalism, but although their activities did much to report progress to those already interested, it failed to elicit an adequate response from the public.

A publication entitled *Summaries of Work* was first issued in April 1940, with the object of keeping branches in touch, and appeared

periodically until October 1941, when it was changed into *The News Bulletin*, issued quarterly. It appeared in this form until December 1944, when it became *The News Letter*, published monthly.

It became evident during 1942 that the services of a professional publicity organiser would have to be obtained. The services of such an organiser, Captain Bagnall, were lent temporarily by the Army but he was unable to join the organisation until the beginning of January 1943. His experience and initiative altered the whole scope and method of publicity and the results were promptly reflected in the success of the Red Cross week of March 1943. He was recalled, however, to the Army at the end of May 1943, and it was not until December 1943, that Mr Stanley Jackson, another experienced publicist, was appointed to carry on organised publicity for the next two years.

Even before Captain Bagnall had joined, the committee, profiting by the advice of Mr H. W. Smith of the Times of India Press, decided to launch a press publicity campaign for some six months from the autumn of 1942 up to the first All-India Red Cross week fixed for March 1943. It was estimated before the campaign was launched that advertising space to the value of Rs 50,000 for a period of six months would be necessary. Contacts were established with the leading newspapers and advertising agencies where generous contributions resulted in advertising space worth over Rs 30,000 being placed at the disposal of the organisation.

During 1943 many schemes were launched to bring the work of the organisation vividly before the public, the *Speakers' Handbook* was prepared and circulated, the production of a full length film undertaken and the renting of boardings in all important towns and cities in India arranged. A Red Cross variety programme was also broadcast weekly from the All-India Radio stations of Madras, Calcutta and Bombay. In the provinces and states publicity sub-committees were organised in close liaison with the publicity section at the centre. Meanwhile Lady Bird's stamp seal scheme was bringing in a steady income through her personal efforts.

For 1944, it was decided to launch a full time publicity campaign which was to run for six months, commencing with the main Red Cross week from 30 January to 5 February 1944. As a result of this intensive campaign over Rs 2,00,00,000 were collected for the second year in succession.

The third Red Cross week was planned for late 1945. The special publicity material provided by the centre included such items as large posters, leaflets, a revised version of the *Speakers' Handbook*, Red Cross flags, stamp seals, stamp cards, etc., and an all-India campaign of press advertisement in the leading newspapers in English and the main Indian languages. The Red Cross publicity committee in Bengal produced a Red Cross film, *Invest in kindness*, with a commentary by Mr R. G. Casey, Governor of Bengal. This film depicted the work of the Red Cross for servicemen as well as for distressed civilians.

on the initiative of members of the Brigade, a new nursing service called the ANS(I) was inaugurated, in 1941, by Lady Linlithgow. A number of Indians and Europeans were enrolled and given a minimum of three months' training in civil hospitals, after which their names were passed on to the Medical Directorate to be called up for hospital service as required. The recruitment for this service was made the responsibility of the lady district superintendents, who succeeded in producing some 3,000 recruits, enrolling them as members of the brigade to secure them protection under the Geneva Convention.

The authorities were for long willing to call up only the general service members and had apparently little use for the local service members. These local service members, therefore, along with the great majority of ordinary members of the Brigade who had local ties, disappointed by the failure of the authorities to utilise them for nursing, turned to other organisations which welcomed them, such as the many ARP schemes organised in 1941 and 1942, and the Women's Voluntary Service. Recruitment to the general service side of the ANS(I) languished on account of the superior attractions offered by such official services as the WAC(I) and the WRINS, with the opportunities these services afforded of promotion to commissioned ranks and of greater freedom outside working hours. The authorities later made strenuous efforts to attract as many women to ANS(I) as possible. But the recruits to the ANS(I) were mainly obtained thenceforth only from among those whose heart was set on nursing and a number of them rendered useful service in some local hospitals.

Specific mention must be made of the initiative of the nursing divisions in Calcutta which were responsible, from 1942 onwards, for running a British troops convalescent hostel and for assistance to other hospitals and hostels in addition to their arduous task of meeting hospital ships and trains and caring for not only thousands of sick and wounded troops but also for many destitute, hungry and disease-stricken refugees fleeing from the advance of the Japanese early in 1942. Similarly, the Bombay divisions had not only nursing responsibility for an 86 bedded ward in the IMH but also provided many welfare facilities for service personnel and civilians at the docks and conveyed in their transport units many thousands of cases between ships, trains and hospitals.

One flaw in the 'Mobilisation Plan' needs specific mention. The St. John Ambulance Brigade, as distinct from the Association, was most inadequately represented on the central and branch joint war committees and, therefore, lacked opportunity to press its claims for employment when plans were under discussion involving the use of trained personnel.

#### FINANCIAL POSITION

By the end of 1941 the impetus of the '1939 Appeal' was well nigh exhausted and the president saved the organisation from ending that year with a small debit balance by allotting Rs. 4,00,000 from

his war purposes fund to meet imminent obligations. The committee needed an ample and more assured income to meet the heavier commitments in prospect during 1942. The president invited the governors of provinces to guarantee remittances to the centre of at least Rs 40,00,000 derived partly from their specific Red Cross war collections and partly from the free balances in their war purposes funds.

The governors were moved to guarantee Rs 42,00,000 in all in 1942, of which Rs 34,50,000 were paid by the end of the year. This source was supplemented by Rs 10,50,000 in direct donations and by £50,000 from the British war organisation, and thus the committee scraped through this difficult year, ending it with little over a lakh in hand.

By the end of 1942, however, the central committee had realised, just in time, that it must both establish personal contacts with its branches to smooth out misunderstandings (which it did by means of the first conference of branch representatives held in November 1942) and spend substantially on organised publicity (which culminated in the first All-India Red Cross week held in March 1943). To ensure, however, against disappointing results, the guarantee system was formally renewed for a second year and yielded promises from the provinces of Rs 75,00,000—approximately double their 1942 guarantees. In addition Rs 69,00,000 were received from branches, Rs 48,00,000 from the Viceroy's own fund, and Rs 30,00,000 from direct donations. The rulers of states and the people of British India responded with amazing generosity during the Red Cross week of March 1943, contributing in that week a sum of Rs 1,14,00,000, the interest thus aroused and the publicity campaign, which continued to the end of the year, brought in some Rs 80,00,000 more. Thus in the course of 1943, the public subscribed about Rs 2,00,00,000 in Red Cross war funds, of which the centre received fully one half and the branches retained the rest for their local activities.

The year 1944 resembled the previous one in its financial results. Remittances of Red Cross collections from branches and donations from provincial and state war funds, though no formal guarantees were sought for this year, yielded the centre Rs 1,13,00,000 supplemented by Rs 17,00,000 in direct donations. Central expenditure went up by nearly Rs 30,00,000 to Rs 1,37,00,000, service to POW taking half that sum and the new Red Cross welfare service nearly Rs 10,00,000. The all-India yield from the second Red Cross week early in the year (1944) was more successful than that of March 1943, the aggregate income of centre and branches combined totalling Rs 2,75,00,000.

The year 1945 promised to make the heaviest demands experienced by the organisation for it was expected to see the launching of the great offensive to regain South East Asia in a series of campaigns that might well last far into 1946. A comprehensive programme, planned in 1944, was to bear fruit in the acquisition of stores costing some Rs 2,00,00,000 during the year, and the total expenditure by



the centre was estimated at Rs. 2,75,00,000 with an additional crore by the branches. The sudden collapse of Japan in August 1945, enabled substantial savings to be made and the year closed with a total expenditure of some Rs. 2,50,00,000, two-thirds by the centre. Nevertheless, the centre realised that demands for Red Cross service must continue from the vast forces in the reoccupied territories from Burma to Japan as well as from the civil population, particularly those of Indian origin, in the liberated territories. The Committee, therefore, advised the Viceroy to issue a final 'Victory Appeal' towards the end of the year, which would not only secure those immediate objects but leave a nest-egg to continue a higher standard of Red Cross service in service hospitals than had prevailed before the war and enable the endowment of homes for those service victims of the war who would need constant medical and nursing attention for the rest of their lives.

The direct result of this '1945 Appeal', which was for Rs. 1,50,00,000, is obscured by supplementary contributions out of the closing balances of branches and of certain independent war funds and by grants for special purposes, such as the £1,10,000 from the British and Scottish Red Cross for the homes. It probably yielded about one crore of fresh money to the centre and branches jointly—a most gratifying recognition of the debt India owed to her armed forces. Payments in this year were half those in 1945, and were mostly for stores ordered early in 1945; and receipts from surplus stores alone exceeded the total payments of the year. The cumulative closing balance at the end of the committee's stewardship was, therefore, nearly Rs. 2,00,00,000, and this aggregate was increased by a few lakhs during the period of liquidation by the joint council, thanks to final contributions from branch closing balances.

#### FINANCIAL REVIEW

In the seven years of its existence the central joint war committee's income was, in round figures, Rs. 7,75,00,000 and its expenditure Rs. 5,75,00,000, but of the balance of about Rs. 2,00,00,000, 75 per cent. was to go to the trustees entrusted with the execution, within the next thirty years, of the two objects named in the scheme approved by the Central Government in August 1946, *viz.*, the construction and maintenance of two homes, one in the north and the other in the south of India, for the permanently disabled of the armed forces, and the maintenance of Red Cross service in service hospitals; and 25 per cent. to the parent bodies for similar purposes.

This income of Rs. 7,75,00,000 came, to the extent of Rs. 6,25,00,000, directly or indirectly from public subscriptions (about Rs. 5,75,00,000 from the public of India), and out of the rest one crore from the sale of surplus and perishable stores and half a crore from refunds etc., including Rs. 25,00,000 through the generous remission by the British joint war organisation of India's proportionate share of the several minor schemes (only partially successful) put into force

for the relief of POW in Japanese hands after the Japanese refusal to admit regular food ships. The large income from the sale of redundant stocks came through the unexpectedly early collapse of Japanese resistance.

These figures, however, large as they are, fall far short of recording the all-India receipts and expenditure on Red Cross war purposes, because the branches retained and spent very large sums also, of which the centre possesses no complete statistics except for the busiest years of 1943/45, when the branches collected Rs 4,66,66,666-10-8, spent Rs 2,25,00,000 locally (including half a crore on amenities) remitted Rs 1,75,00,000 to the centre and carried forward the balance into 1946. If due additions are made for their activities in 1939-42, and in 1946, until they closed down, the aggregate spent by the branches on Red Cross war purposes must have exceeded Rs 3,00,00,000. In brief, therefore, the several Red Cross war committees, central and provincial, obtained between them well over Rs 11,00,00,000 from the public and spent about Rs 9,00,00,000, handing over a balance of Rs 2,00,00,000 to their parent bodies.

But this result was not attained without much effort and many anxious periods when it seemed as though income would fail to keep pace with expenditure. The table below shows how close the centre was to bankruptcy at the end of 1941, and again at the end of 1942, and how it was saved from 1943 onwards only by the amazingly generous response of the public to well organised publicity and the reinforcement of that publicity by the personal exertions (and guarantees) of heads of provinces and states and the great body of workers in the branches in the critical years of 1943 and 1944.

*Financial position from 1939 to 1946 in lakhs*

	Donations	Refunds and sales	Total income	Payments	Annual difference	Closing balance
1939-40	12½	2½	15	3½	+11½	11½
1941	11	1	12	19½	-7½	4
1942	52	1½	53½	56	-2½	1½
1943	221½	3½	225	108	+117	118½
1944	135	12½	147½	137	+10½	129
1945	87	31½	118½	16½	-45½	83½
1946	86½*	112	198½	82	+116½	200
Total	605½	164½	770	570	—	—

\*This excludes Rs 27,00,000 earmarked for the trustees.

The figures for the successive years given in this statement suggest certain lessons for the future. Financial relations between the centre and the branches were left vague at the last moment in the plan, when it was realised too late that the major branches would not submit to central dictation and there was no time left to negotiate settlements with them by mutual agreement. An initial endowment

his help comprehensive codes were prepared and printed incorporating all the resolutions and orders governing finance and accounts which had hitherto been issued. These codes :—

- (i) defined the financial powers of the working committee and of the several grades of officers of the hierarchy ;
- (ii) regulated the keeping of accounts ; and
- (iii) laid down the conditions of service and travelling for all personnel.

By these means financial and accounting regularity was secured, and Messrs. Ferguson & Co., the official auditors, were able, year after year, to certify, with only minor comments, the correctness of the organisation's cash accounts.

As regards store accounting, however, the results were not so satisfactory. The system was sound enough, prescribing as it did the maintenance of ledgers, the recording of all receipts and issues, the regular use of issue and receipt vouchers and the periodical reconciliation by physical count of ground with ledger balances. There is reason for believing that in most depots this system worked satisfactorily until the last few months, except that indenting units were often careless about sending receipted vouchers for consignments. Such discrepancies as were revealed by physical check against ledger balances were usually due to mis-classification of stores ; but when stock-taking was done in certain depots as they were on the point of closing down late in 1946, substantial shortages were for the first time revealed which could not be fully accounted for by mis-classifications or issues made in haste without the requisite entries in the ledgers. These shortages were most apparent at the Calcutta, and less at the southern depots which had been the main transit depots in the latter months of the war and into which stores had come in bulk from up-country depots and been returned by forward depots which had closed earlier and by demobilising units. Much of the loss was undoubtedly due to pilferage in transit on the railways and about the docks, and there is no doubt that the cumulative losses on this account were very considerable.

The following paid personnel (officers and clerks) were employed under the Indian Red Cross and St. John war organisation from 1940 to 1946, as on 1 January of each year :—

			1940	1941	1942	1943	1944	1945	1946
<i>Headquarters</i>									
Officers	..	..	1	2	3	7	9	20	22
Clerks	.	.	3	3	9	22	30	68	73
<i>Central Depot, New Delhi</i>									
Officers	...	.	..	.	1	1	1	1	1
Clerks	..	.	.	..	...	1	2	7	6
<i>Northern Region, Lahore</i>									
Officers	.	..	...	...	.	.	..	..	2
Clerks	...	...	...	..	...	.	.	.	5

	1940	1941	1942	1943	1944	1945	1946
<i>United Central Region, Delhi</i>							
Officers						2	3
Clerks						2	2
<i>Lucknow Depot, Lucknow</i>							
Officers						2	1
Clerks						6	17
<i>Eastern Region and Calcutta Depot</i>							
Officers				2	5	7	7
Clerks				1	12	26	42
<i>Western Region and Bombay Depot</i>							
Officers	1	1	1	1	3	5	6
Clerks		1	3	7	8	8	11
<i>Southern Region, Bangalore</i>							
Officers						1	4
Clerks					1	5	20
<i>Madras Depot, Madras</i>							
Officers						1	4
Clerks							7
<i>Secunderabad Depot, Secunderabad</i>							
Officers				1	1	4	3
Clerks				1	2	5	9
<i>Headquarters ALFSEA</i>							
Officers						1	14
Clerks			(no information available)				
<i>Red Cross Commission, Malaya</i>							
Officers			1	1	1	1	
Clerks			(no information available)				
<i>Andamans</i>							
Officers							2
Clerks							1
<i>Japan</i>							
Officers							
Clerks			(no information available)				
<i>Middle East and Central Mediterranean Forces</i>							
Officers		2	2	3	5	3	1
Clerks		5	7	8	8	10	10
<i>Iraq-Iran</i>							
Officers			1	3	3	2	1
Clerks				1	2	2	2
<i>Total</i>							
Officers	2	5	9	19	28	50	71
Clerks*	3	9	19	41	65	139	205

\*The figures are incomplete

#### POST-WAR PLANS—JOINT WAR ORGANISATION INDIAN RED CROSS AND ST JOHN

Soon after the hostilities ceased, the central joint war committee began to consider which of its war-time activities it should try

to continue, perhaps in a modified form, for the benefit of service and ex-service personnel in peace time and by what agency, and to what extent it could find ways and means of giving the schemes it approved at least a satisfactory start from the financial standpoint.

In October 1945, it resolved to devote the British Red Cross offer of £1,10,000 for "a scheme solely in the interests of Indian members of the services and preferably of a concrete and tangible nature" to the construction and equipment of "a Red Cross home for the care of the seriously disabled ex-servicemen, somewhat on the lines of the Star and Garter Home at Richmond". Rough estimates showed that a home for 300 patients would require at least Rs. 77,00,000 to maintain it for thirty years. The president made special reference to this object in his 'Victory Thanksgiving Appeal' of November 1945. The cordial concurrence of the British society was quickly given and early in January 1946, the chief commissioner was directed to proceed with this scheme in consultation with the DMS and the Welfare General in India, and to investigate suitable sites, both permanent and if need be temporary also, for the location of two homes, the larger one in northern and the smaller in southern India. The vicinity of Bangalore was accepted as the site for the permanent southern home and temporary quarters were leased for it at St. Mary's Home, Bangalore, before the organisation was wound up in September 1946. Possible sites for the permanent northern home had, in the meantime, been explored in the Abbottabad, Rawalpindi and Dehra Dun areas, each of which possessed some drawbacks, and it was not until late in 1946 that temporary quarters were offered and accepted in a detached wing of a war hospital at Sialkot.

But the committee did not consider this scheme to be sufficient expression of the gratitude of India to her armed forces. As soon as its income from the appeal and from the disposal of the stores showed signs of exceeding what was needed to endow the homes, the committee considered what should be done for the partially and temporarily disabled ex-servicemen and for sick members of the post-war forces. Official rehabilitation centres were, it was found, providing training in various trades for the temporarily and partially disabled; and the committee supplemented this provision by a large grant to meet the cost of the tools of the selected trades. Moreover, the medical after-care fund, the administration of which had been entrusted to the medical committee of the Indian Red Cross Society, was intended to meet the cost of the treatment of such personnel in civil hospitals and the provision of artificial limbs etc. Hence a decision was taken to transfer a quarter share of the committee's closing balance to supplement the resources of the parent bodies—the Indian Red Cross Society and St. John Ambulance Association—to deal generally with the medical and surgical needs of service and ex-servicemen and women; and to devote another quarter to the continuance of Red Cross service both stores and welfare personnel, on a reduced but still reasonable scale, in the hospitals for the post-war services. The remaining half was reserved for maintaining the homes.

In view, however, of the fact that the funds earmarked for these objects were considered by the Government of India to be out of proportion to the number of beneficiaries likely to be benefitted by them and the further fact that the objects of the scheme were within the scope of the parent bodies, the government sanctioned a modified scheme in April 1948. According to this modified scheme, the balances of the war organisation were transferred to the parent bodies, two-thirds to the Indian Red Cross Society and one-third to St John Ambulance Association, to be held by them as part of their general funds and be applied for the purposes for which their funds might be applied under their respective constitutions with the proviso that 25 per cent of the amount so received by them shall be applied for their work for service and ex-servicemen and women and for other objects consistent with the appeal as necessary.

The committee could only make plans, it could not execute them for its days were officially numbered. Acting on legal advice, therefore, the committee joined with its two parent bodies in promoting a scheme for the vesting of its net closing balance in a joint council composed of the managing committees of the parent bodies and the distribution of these assets in the following ways: one half to the trustees for the homes, one quarter to the trustees for the maintenance of Red Cross service in service hospitals and one quarter to the parent bodies to be divided between them, two thirds to the Indian Red Cross Society and one-third to the St John Ambulance Association. The government sanctioned this scheme by a notification published on 31 August 1946, under the Charitable Endowments Act and the committee became legally *functus officio* on 30 September 1946, when it received legal absolution for the acts and omissions of its regime and the joint council became responsible for its liquidation and the continuance of such services as the scheme imposed on the trustees during the transitional period until the council nominated the first boards of trustees and they assumed administrative charge.

The joint council at its meeting on 3 January 1947, nominated two boards of trustees identical in personnel for the execution of the two objects outlined in the scheme, *viz*, the constitution and maintenance of the homes, and the maintenance of Red Cross service in service hospitals. The trustees included five ex-officio trustees *viz*, the C-in-C, Chairman, Indian Red Cross Society, Chairman, St John Ambulance Association (Indian Council), the DGIMS and the DMS. The boards met for the first time the next day and accepted administrative responsibility from 1 January 1947, though practical difficulties in completing the liquidation of the war organisation necessitated the continuance of the joint council for some months longer until the final net balance of the war organisation could be determined and certified by the council auditors and distributed to the several beneficiaries, including the trustees, in accordance with the scheme.

The funds which these shares brought to their administrators approximately were as follows —

- (1) To the trustees for the homes some Rs 1,00,00,000 (including the building and equipment grant of £1,10,000) plus a

special gift of Rs. 15,00,000 from the closing balance of the Madras provincial branch for the maintenance of the southern home.

- (ii) To the trustees for hospital service Rs. 50,00,000 plus Rs. 10,00,000 received as a supplement from the residue of the Viceroy's war purposes fund.

(In addition sundry donations were received from the closing balance of branch joint war committees of which that of the United Provinces, Rs. 2,00,000 was the largest single item—this donation was to be distributed proportionately between the trustees).

- (iii) To the managing committees of the Indian Red Cross Society Rs. 33½ lakhs and to the St. John Ambulance Association Rs. 16½ lakhs.

Colonel R. N. Khosla, IMS, was selected as the first chief executive officer of the trusts and he retired from active service to take up the appointment early in October 1947. Immediately on joining he toured extensively and surveyed the possible sites (temporary and permanent) for Red Cross homes. He found the St. Mary's Home fairly suitable for use as a temporary home for the disabled in the south after extensive renovations and alterations. Accommodation was available in this home for eighty to a hundred patients. For the home in the north hospital accommodation offered by the military authorities in a detached wing of the IMH, Sialkot was accepted. To make the place suitable for accommodating invalids a good deal of renovations and repairs had to be undertaken—painting of woodwork and walls, making proper paths and ramps for use of wheelchairs, suitable modification of the accommodation to provide a dining hall, recreation and physiotherapy rooms. Accommodation had also to be found for lodging the families and out-station visitors of invalids. All this work took time. Meanwhile financial details had to be settled, rules of procedure passed by the executive committee, and budget estimates framed and adopted. In all this essential financial work most valuable guidance and assistance was given by Sri Ganga R. Kaula, honorary treasurer of the trusts. Staff had to be engaged and it was decided to recruit personnel progressively as the volume of work in the homes increased. The policy adopted was to appoint only ex-servicemen, and from the enormous number of demobilised IAMC men very good material was available immediately. The military authorities of all formations gave unstinted help in every possible way in order to make the homes a success and to enable them to start functioning without delay. Even then it took time. Bangalore home (south) was started on 12 February 1947, with 17 invalids and Sialkot home (north) on 28 March 1947, with 34 invalids shifted from local hospitals where they had been collected in anticipation of the opening of the homes. The first estimate of invalids who were likely to be admitted to the homes was stated by the DMS in India to be approximately 300 but when final figures were obtained by census in military hospitals, the number likely to be transferred from these hospitals, was found to be 122.

The following types of cases were admitted to the homes —

- (i) All forms of serious paralysis
- (ii) Seriously disabled cases of T B of the bones or joints
- (iii) Crippling arthritis (crippling diseases of the joints)
- (iv) Serious disablement from loss of limbs
- (v) Serious disablement from nerve or brain injuries but not mental cases
- (vi) Any other cases of serious disablement from injury or disease which required nursing

*Progress in admission* Gradually, from their homes and from military hospitals, invalids began arriving for admission to the homes. On 16 August 1947, the number of invalids on the strength of the homes was 79 at Sialkot and 28 at Bangalore. Most of the cases were of paraplegia, either bed-ridden or requiring the use of wheeled chairs.

*Establishment* The establishment scales for the Red Cross homes, as first approved in January 1947, are given below. These were liable to modification in the light of experience gained later.

Category	Original scale for 100 beds	Original scale for 50 beds
Medical superintendent	1	1
Medical officer	1	1
Matron	1	1
Sisters	2	1
Staff nurses including male nurses	9	6
Lady welfare officer	1	1
Physiotherapist	1	1
Quartermaster	1	1
Accountant	1	1
Store keeper	1	1
Clerk	1	1
Dispenser	1	1
Masseur orderlies	2	1
Nursing orderlies	22	10
Cooks	5	3
Hospital sweepers	20	12
Conservancy sweepers	5	3
Peons	2	2
Chowkidars	2	2
Malis	3	3
Bhisties or ward servants	8	5
Motor drivers	2	2



*Budget* : It was difficult to forecast the expenditure to any degree of exactitude—estimates were only approximate. The first, budget for 1947, for the two homes was as follows :—

		<i>Bangalore home 50 beds. (Eleven months) (Amount in thousands)</i>	<i>Stalkot home 100 beds. (Nine months) (Amount in thousands)</i>
Buildings—(addition and alteration)	..	25 4	16 7
Furniture and fittings	..	11·4	7 6
Equipment	...	47 0	47 0
Salaries	...	51·0	55·0
Compensatory allowances	..	14 0	22 0
Provident fund contributions	..	3·5	4·8
Travelling allowances	.	1·0	3 0
Office contingencies	...	0·8	0·7
Supplies and services	..	55 6	90 7
Total	... ..	209·7	247 5

*Equipment* : Before winding up their stores organisation the joint war committee had set aside and stored at Bangalore large quantities of stores and equipment required for equipping the homes, including linen, ward equipment, amenities stores, recreational stores, textiles, etc. Medical and surgical equipment was obtained from military medical stores on payment. Furniture was either locally made or bought from surplus Military Engineering Service stores.

*Details for running the homes* : It was realised that the running of the homes would be a no easy matter in the beginning as there was no data obtainable anywhere in the country to draw upon. Experience gained in the actual running of the homes would have to be utilised in the improvement of their organisation. From the very beginning, stress was laid on the following special features :—

- (i) *Physiotherapy treatment* : Equipment was purchased or obtained on loan from military sources. The ex-IAMC masseurs were recruited who understood the routine physiotherapy work required for the invalids. The medical officer of the home, who was specially selected for his surgical experience, was to supervise the work.
- (ii) *Nursing* : By selecting fully trained experienced staff in sufficient numbers, most skilful nursing was ensured. The effect of this was soon evident in the rapid improvement in the condition of the invalids after their admission into the homes.
- (iii) *Occupational therapy* : Under the lady welfare officer it was stipulated that all types of diversional therapy work should be taught to the invalids to occupy their time and also to enable them to earn some pocket money while in the home. Among the various types of handicrafts undertaken in the beginning were knitting, leather work, weaving, embroidery and painting.

- (iv) *Issue of amenities* There was a free issue of toilet material as hair brush, combs, tooth brush, soap, hair oil, writing materials were also to be provided. It was also arranged that patients would get free postage for one letter home every fortnight. In the case of illiterate patients, the letters were to be written by the welfare officer. Issue of free cigarettes was also allowed.
- (v) *Entertainments* To keep the invalids amused and happy, recreation rooms were fully equipped with radios, musical instruments, gramophones and indoor games. A good library of selected books in all the Indian languages together with newspapers, periodicals and illustrated magazines was established. It was also arranged that the invalids should be provided with full facilities for the celebration of different Indian festivals. Motor transport was provided to take the patients for outings, to parks, cinemas, sports, tea parties, etc. Tickets for the cinemas were paid for by the organisation.
- (vi) *Diet* Patients were to be given a well-balanced nourishing diet and great stress was laid on the careful planning of the menus and proper service of food. The scale of diet was estimated to cost Rs 2-8 0 per invalid per day.
- (vii) *Educational facilities* Teachers were engaged for teaching Hindi, Urdu, English and other languages to the invalids.
- (viii) *Settlement of pension claims* As the settlement of pension claims and accounts is a very important factor in keeping up the morale of the invalids, individual cases were vigorously taken up and pursued for early settlement.
- (ix) *Visitors* As the happiness of the invalids depended a good deal upon their relatives and friends visiting them regularly, visitors were encouraged and arrangements were made for free accommodation and feeding of their relatives. Funds were provided by the Army authorities to meet the travelling expenses of the visitors to and from and to their homes.

The mention of the organisation of the homes would not be complete without reference to the very keen and lively interest taken firstly by Lady Wavell and then by Lady Mountbatten in the starting and equipping of these homes. Their help was invaluable in obtaining the co-operation of both the military and civil authorities.<sup>3</sup>

#### MEDICAL AFTER-CARE FUND

The Viceroy initiated the formation of a fund entitled 'The Indian Forces Medical After care Fund' in December 1941, at the headquarters of the Indian Red Cross Society to provide medical relief and other ameliorative measures for ex-servicemen of World War II. Later on, the benefits of this fund were extended to ex-servicemen of World War I, personnel of States Forces who served with

the Indian forces, INA personnel originally enrolled in the Indian forces, and such Indian personnel of the Allied forces as participated in World Wars I and II.

The fund was first started with a donation of Rs. 3,00,000 made by the Maharaja of Travancore, to which the following amounts were subsequently added :—

Rs.	
10,00,000	.. donated by the Maharaja of Bhavnagar in 1942.
25,000	.. from Gwalior war purposes fund.
40,000	... from Alwar state.
10,000	... from Khairgarh state.
1,20,00,000	... from the Viceroy's war purposes fund on its closing down in 1946.

The joint war committee of the Indian Red Cross Society and St. John Ambulance Association gave a contribution of Rs. 5,000 for assistance to the women invalided from the services.

The committee administering the fund consisted of :—

The DGAFMS.

The DGHS

The Surgeon in Chief, St. John Ambulance Brigade (India).

The Secretary, Indian Sailors', Soldiers' and Airmen's Board.

The Honorary Treasurer.

The Secretary General Indian Red Cross Society (Secretary).

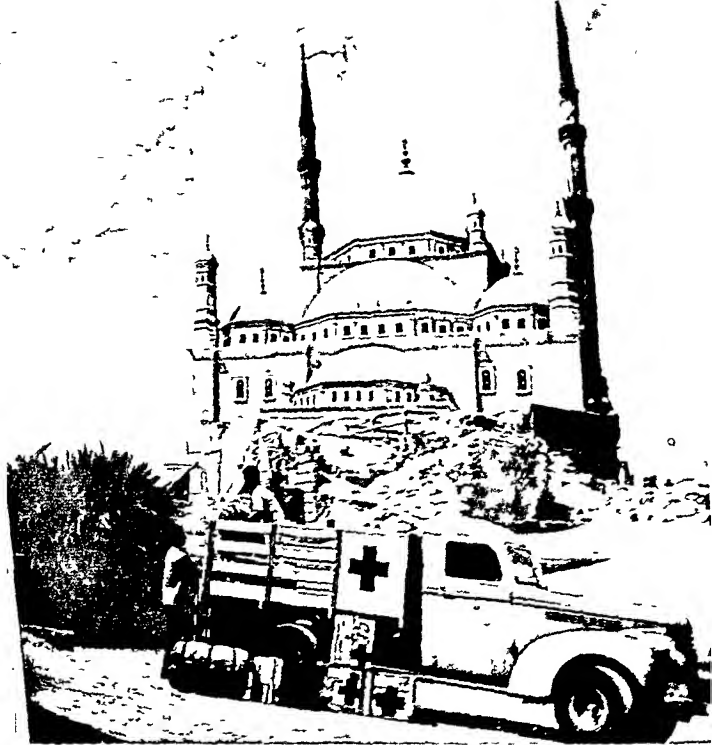
Grants were generally made to cover the cost of institutional treatment, nourishing diet, medical after-care at home, travelling expenses to and from hospitals or sanatoria, artificial limbs, wheeled chairs, electric hearing aid sets, spectacles, dentures, etc.

In order that all advantage might be taken of the facilities afforded by the fund, in 1942, the DMS in India issued instructions to officers commanding military hospitals to report to the Indian Soldiers' Boards cases requiring medical after-care, as these were discharged from hospitals, in order that they might be followed up with a view to giving them necessary assistance from this fund. Later in 1945, Welfare General in India was requested to advise civil liaison officers to contact ex-servicemen and to forward applications for relief through the District Sailors', Soldiers' and Airmen's Boards so that help from the fund might be made available to deserving cases without undue delay.

From the inception of the fund, the following amounts were spent :—<sup>4</sup>

<i>Year</i>	<i>Amount spent in rupees</i>	<i>Number of cases helped</i>
1942	240	—
1943	2,458	14
1944	18,550	67
1945	50,116	176
1946	84,000	375
1947	1,68,084	834

<sup>4</sup> C/3/10/H(M).



INDIAN RED CROSS DELIVERING SUPPLIES IN THE MIDDLE EAST



A WAR BLINDED SOLDIER WITH ANOTHER WAR BLINDED AND ARMLESS  
COMRADE AT ST DUNSTAN'S, DEHRA DUN

## APPENDIX II

### The Care of the War Blinded Soldiers' in India at St Dunstan's

#### THE BEGINNINGS OF ST DUNSTAN'S

In spite of all the vast loss, the destruction of life and material things, of cultural values, of happiness and goodwill, war does just occasionally bring forth good fruit, something for the betterment of mankind. St Dunstan's born of a need created by the World War I, was, perhaps, one of these good fruits. Soon after its outbreak the late Sir Arthur Pearson, himself totally blind, was deeply moved by the tragedy of hundreds of young men arriving in England, sightless, from the far flung battle fields. He determined that they should be given the best service modern ingenuity could devise. Being blind himself, he had realistic views as to the form this service should take. He would not have his men at St Dunstan's called "patients", "inmates", "the poor afflicted" or by any other term which implied inferiority or the loss of their manly characteristics. Sentimentalism got no encouragement—sympathy—yes, but a practical sympathy directed to one end only, i.e., restoring the soldier to as full a life as he had enjoyed before the loss of his sight. Living in comfortably pensioned idleness had no place in Pearson's conception. Idleness, as all blind people agree, is the real curse of blindness. Sitting in unending darkness with nothing to fill the laggard months is unendurable, but give a blind man a real job, one which has the virtue of being of economic value, one which fills a need in his community, and he is the happiest man in the world. That was Pearson's chief aim and he saw to it that St Dunstan's did a complete job of re-establishing the blinded man. He was taught to live normally, not to require waiting on, he was taught to take up his old games and hobbies, athletics, gymnastics, rowing, swimming, hiking, dancing, music, cards, gardening and so on, he was encouraged to play his part in local

<sup>1</sup> The contributor of this narrative Lieut. Colonel Sir Clutha Mackenzie was born in New Zealand in 1895. Sheep and cattle farming was to have been his career but in 1914 he went on overseas service with the first New Zealand Expeditionary Force and was blinded in action during the Dardanelles operations of the following year. He, however, soon triumphed over his disability. His training at St Dunstan's in London as one of its first trainees took only five months. He was soon busy again, still in the Army as the editor and publisher of the New Zealand Expeditionary Force Journal. When the war ended he returned to his own country where he entered parliamentary life and took charge of the resettlement of the war blinded men. His chief work however soon became the welfare of the civilian blind the standard of which was not then up to modern standards. During World War II he was in India and organised the St Dunstan's Hostel for Indian war blinded and worked as the commandant of the hostel till 1948. He assisted the joint committee appointed by the central advisory board of health and the central advisory board of education in preparing the *Report on Blindness in India* which was published in 1945. Sir Clutha has travelled extensively, has studied blind welfare in many lands and has worked both in the UK and the USA. He received the Order of Knighthood in 1931, for his work for the blind and Kaiser-i-Hind Gold Medal in 1947 for his service in India. In 1947 he reported on blindness for the Governments of China and Malaya. (H/5/32/H(M))

affairs, taking his place on committees, or even to enter political life. When the training period was over St. Dunstan's provided money and guidance to set him up in his new occupation and in a house of his own. Most of the three thousand men who lost their sight during and in consequence of World War I were soon back in harness as men of the everyday world. Their occupations ranged over the professions, business, agriculture, and handicrafts. They included lawyers, university professors, musicians, ministers of religion, research chemists, teachers, company managers, journalists, masseurs, telephone operators, shop-keepers, poultry farmers, market gardeners, basket makers, joiners, mat makers, net makers and so on. This was the most outstanding work which had ever been done in the rehabilitation of gravely disabled men. It was a voluntary effort. Commonwealth Governments gave their wholehearted approval and co-operation, but the money for it was the generous gift of private men and women. Most of the staff, too, were voluntary workers.

Education, training and employment of the blind was not new. The first school for the blind had, indeed, been founded in Liverpool in 1791; but throughout the eighteenth century many societies for the blind had borne the stamp of the poorhouse. They had functioned under such titles as 'Institution for the Indigent Blind' and 'Asylum for the Poor Afflicted Blind'. Their students and workers were termed 'inmates' and denied the freedom enjoyed by ordinary people. Such recreations as dancing and card playing were looked upon as shocking. Nevertheless, this was a valuable pioneer phase, during which steady headway was made, paving the way eventually for the more human practical approach of St. Dunstan's. It is, therefore, not surprising that we find the following passage in the *League of Nations Report on Blindness*, 1929:—

"One of the effects of the Great War was to blind a number of soldiers and sailors, and the hardship involved in the loss of sight by men in the prime of life deeply moved the compassion of people of all nations. Organisations for providing for the welfare of these blinded soldiers and sailors sprang into being in many countries. One of the first and best known of these is St. Dunstan's, London. This institution has specialised with success in training blind ex-servicemen from all parts of the British Empire in occupations which they can carry on in their homes or elsewhere. The provision for the welfare of the blind was steadily increasing before the beginning of the Great War, but there is reason to think that the sympathy aroused by war-blinded men has had its reaction on the care of the civilian blind and has done much to stimulate the developments of recent years".

It is not improbable that the work which St. Dunstan's carried out in India during and after World War II will have similar consequences.

The beginnings of modern blind welfare in India date from 1887, when the Church Missionary Society founded a school for blind children in Amritsar. Other mission schools followed, and, later, philanthropic societies and the Governments of Indian States added to their numbers. These were gallant efforts, though on the whole the public and the government did not give the requisite support. Their

task in the circumstances was an uphill one. In 1943, only 1,212 out of the vast total of two million blind were served by the existing thirty-two societies for the blind.

Sir Arthur Pearson had also tried to extend St Dunstan's services to India in World War I, but the war blinded men of those days could not be persuaded to embark upon training. Consequently, St Dunstan's had to resort to the only alternative of handing over a substantial sum of money to the Indian Soldiers' Board which, in exchange, undertook to pay a sum of Rs 5 per month, additional to the war disability pension, to every totally blinded ex-serviceman.

#### THE INDIAN ST DUNSTAN'S IN WORLD WAR II

Sir Clutha MacKenzie happened to be on a private visit to India when war broke out in September 1939. A few days later the Chairman of St Dunstan's, Sir Ian Fraser, cabled from London, asking him to set up a St Dunstan's Indian committee for the purpose of appealing for funds and making preparations for the care of Indian, and Gurkha, and British servicemen and women who might lose their sight in the course of military operations. The then Viceroy, the Marquis of Linlithgow, granted Sir Clutha MacKenzie an interview in Simla at the end of the month, and an arrangement was arrived at under which the Viceroy opened a special St Dunstan's section in his war purposes fund and St Dunstan's, on its part, undertook to make 'full and generous provision' for all blinded men of the Indian armed forces and to open a training centre in India as soon as the number of blinded men justified it. The Viceroy also issued an appeal for contributions to the St Dunstan's section, opening it with a gift of a lakh of rupees from his main fund. An all-India committee was set up under the chairmanship of Sri Ramaswami Mudaliar, who was succeeded in turn by Sir Feroze Khan Noon and Sardar Baldev Singh. Many provincial, state and cantonment committees were also established as part of the St Dunstan's Indian committee.

This preliminary task completed, Sir Clutha left India for service elsewhere. Luckily the first two years of hostilities yielded few casualties and only a very occasional case of eye injury. Towards the middle of 1942, however, cables from the Government of India and St Dunstan's reached him in New York stating that numbers then appeared to make the opening of a training centre in India desirable and asking him to return. Sir Clutha returned to India at the end of July 1942. Even then, though there were undoubtedly many unnotified cases scattered about in the hospitals, the full details of only eight men were known. These, too, unfortunately had been discharged to their villages, and proved extremely resistant to all efforts to tempt them to return for training.

In January 1943, the DMS concentrated a small group of blinded men in the IMH Kirkee. Sir Clutha hurried off to see and talk to them. They listened politely but stolidly to his talk, and said 'No'. Next morning, however, they sent a message to say that they would like



to see him again. They said that they had thought the matter over and had decided that there was wisdom in his words. They would, in fact, like to try the training and would come to a centre if it could be established at Dehra Dun. With the assurance of a nucleus of cases to work on, Sir Clutha went there at once. The war was at a critical stage and so concentrated was the demand for personnel and materials for front line effort that the assembly of a unit, complete with staff, buildings and equipment proved no easy task. This state of affairs continued to handicap the organisers for the next two years. Both the military and civil authorities, however, helped to the best of their ability. Invaluable voluntary help was also given by private people and by such excellent organisations as the Women's Voluntary Service.

The Army handed over to St. Dunstan's Indian committee three bungalows and outbuildings at 54 Rājpur Road, Dehra Dun, which had been used first as quarters for Italian POW officers and then for Burma refugees. Although this estate was in no good condition yet it was turned into a pleasant home where in July 1943, the first little group of 7 men arrived. By the end of the year the number of men in training had risen to 27, to 51 in December, 1944; to 105 in December 1945; and 111 in December 1946. By that time 92 had left the hostel. Altogether 328 cases were handled.

The official opening by the Governor of the United Provinces, took place in April 1944. By that time the men were already able to demonstrate a gratifying degree of proficiency in the range of subjects then being taught—Braille, typewriting, recreational music, weaving, mat-making and rope-making—as well as in the subjects of personal independence, getting about alone, good bearing, etc. To meet growing demands for space new barracks and workshops were added for which the money was generously given by Sri Ganpat Prashad. The opening day was, indeed, a great success.

For a few days the first arrivals shuffled about the place breathing scepticism and depression. They plucked at the threads on the small *newar* looms with unbelieving fingers. It was at the little concerts among themselves in the evening that they began to forget their troubles. Food, drinks and cigarettes paved the way for loosening up, and then each man in turn was stimulated to chant a song from his countryside or to dance a village jig. Almost magically their complex against the St. Dunstan's conception vanished; interest in their work grew rapidly and at length a spirit of competition took root. A circular path, fitted with a guide rail, led round the grounds. Prizes were given for the best efforts at walking naturally and confidently round this path, while other prizes for putting the weight, throwing the cricket ball, wrestling, and tugs-of-war stimulated enthusiasm for physical capacity.

The entry of British troops into St. Dunstan's in England is voluntary. They, however, know before they are wounded about St. Dunstan's and the great value of its training, so that they go there as a matter of course. But it was evident in the initial stages in India

that few Indian troops would enter voluntarily. Asked by officers commanding hospitals if they would care to go there, they would almost invariably say 'No'. The organisers, therefore, felt that it was only fair to the men that they should be given a chance to judge properly for themselves whether they would or would not like St Dunstan's. They felt sure that if they could get them to come for only a week they would remain. GHQ implemented their suggestion that all serious eye cases should be transferred to a military hospital in Dehra Dun, and that those who were classified as permanently blind should go to St Dunstan's hostel for a period of up to four months, just as a soldier might be detailed to any other course. The period of four months was fixed in order to allow sufficient margin for men to take such home leave as they might be entitled to. This worked admirably and usually it took only forty-eight hours for a man to register in his mind that St Dunstan's was a good place and that he would see his full course through.

In addition to the official steps taken by the services, and especially by the DMS to route blinded men to Dehra Dun, St Dunstan's had its own voluntary outposts in Naples, Cairo, Karachi, Calcutta, Secunderabad, Bombay and Bangalore, where a number of enthusiastic voluntary workers rendered creditable service. These and many smaller committees, and individual representatives, gave yeoman service in the three main fields of raising money, attending to the welfare of blinded men in hospitals and assisting in problems of re-settlement when the men left St Dunstan's. An excellent scheme proposed by Lady Glancy, as president of the Punjab Women's Voluntary Service, consisted of the adoption of blinded soldiers by organisations, units and individuals, who would each contribute Rs 5,000, which was the estimated cost of a single man's training, re-settlement and after-care. This brought valuable help and, furthermore, created close personal links between the contributors and the men. Apart from a number of Indian and British ladies, who gave voluntary aid as instructors, assistants, matrons or organisers of outings, the men received splendid service from the cadets at the Indian Military Academy, the boys of Doon School and members of the Survey of India staff. They helped the men with their sports and took them for walks. They were particularly useful in writing letters for the men to their homes in the various scripts. At times the men represented as many as eighteen mother tongues and it was essential that they should be able to send letters to their homes which their families could read.

With the growth of general rehabilitation services as part of the government's assistance to ex-servicemen, it was considered reasonable that the government should meet such part of the expenses as it would normally be meeting in the case of other disabled men. It willingly agreed, and the final arrangement was that the Defence Services provided land and buildings, rations, clothing, normal barrack staff and equipment, medical services, clerical assistance, telephone, postage and transport, whilst St Dunstan's furnished the executive

and instructional staff, matron and welfare officers, equipment, amenities, special money allowances for men, and all resettlement and after-care costs. This arrangement worked excellently and throughout the whole period the happiest relations existed between all the services and St. Dunstan's hostel—an invaluable contribution towards the success achieved.

During the first year and a half a number of British soldiers arrived for preliminary training until hospital ships were available to take them to England or to St. Dunstan's advanced base in Cape Town, from where, the RAF flew them direct to England as soon as they were fit to travel. Similarly, towards the end of 1945, a section was opened for West African troops. These men proved to be quick and interested learners, and two of them made a rapid round of most of the crafts in the four months which passed before a hospital ship took them home. A Goanese, a Burman Karen, a few Pathans and a substantial body of Gurkhas completed the tally of those whose homes lay beyond the frontiers of India. India was fully represented by men from most of the provinces.

St. Dunstan's in England is conducted as a civilian establishment. A few of the men may be wearing uniform, usually British or Dominion troops who may not have been discharged. In India, however, as the one form of organised life of which all the war blinded men had common knowledge was the military one, St. Dunstan's was run on the lines of an Army unit, which arrangement answered very well.

By the end of 1945, it was obvious that the hostel was outgrowing its original site. Twice temporary barracks and workshops had been added but lack of space forbade further expansion. For over a century the Governor General's Body Guard had been using Dehra Dun as its summer station. The Body Guard was, however, on war service and had not been in Dehra Dun for several years; so, hearing of St. Dunstan's need for larger quarters, Lord Wavell generously placed the lines at the disposal of the war blinded soldiers, rent free. The officers and men of the Body Guard, with all the devotion of a unit with high traditions, had set the lines about with fine buildings, trees, gardens and sports grounds, orchards and cultivated fields, such as gladden the hearts of soldiers recruited from farming and fighting races. They said that no temporary occupants of their home could be more welcome than the men who had given their sight in the war. It might be thought that beauty and spaciousness are unimportant, if not indeed unnecessary, to sightless men; but this is not so. By scent and sound, by the feeling of space, of breezes and sunshine, and by the sub-conscious picturing of the world about him, the blind man enjoys pleasant surroundings just as much as others do. He needs room too for walking and games. The lines suited the purpose excellently. The stables were easily converted into ample workshops, and loose boxes into convenient small rooms for typewriting, Braille, knitting and music class rooms. Married quarters, barracks, clothing and ration stores, offices and recreation rooms were exactly what was

needed, and it was handy for the men having their own temple, mosque and Gurdwara

Here, throughout 1946 and the first half of 1947, the maximum number of men in training at any one time was 114 plus 6 blind staff. Departures then began to exceed arrivals, and by the end of the year it appeared that the training side of the task would finish by the middle of 1948.

In April 1947, St Dunstan's Council in London, feeling that in conformity with the spirit of the times the Indian committee might like to feel that legally, as well as administratively, it was in full and independent control of the activities in India, offered it this independent control. This committee thanked the Council for its proposal and, while accepting ownership, expressed the wish that the friendship and technical advice of the parent body might still remain available to it. The transfer of ownership took effect on 1 March 1948. On that occasion the Indian committee said that it hoped to continue the Dehra Dun centre as a permanent establishment, which might, with the assistance of funds raised for the purpose, embark upon much-needed service in the field of civilian blindness. The Government of Nepal agreed that the welfare of the war-blinded Gurkhas should remain in the hands of the new independent Indian committee, which would of course continue the re-settlement and after-care services in accordance with the original policy and the conditions under which the public had contributed. The government and representatives of voluntary workers in Pakistan asked the council in London to continue to embrace Pakistan within St Dunstan's Commonwealth organisation, maintaining a representative committee in Pakistan to administer its share of the funds. Indian assets were divided between India and Pakistan in the proportion of seventy-four to twenty-six, arrived at on the basis of the men's domicile. By this time the Pakistanis had left Dehra Dun and the task of the new working committee in Lahore was that of completing the re-settlement of the men in their homes and the giving of after-care services.

It is worthy of note that the work at Dehra Dun caught the interest of the governments and of the friends of the blind both inside and outside India. In 1942, the Government of India asked Sir Clutha to undertake a survey of blindness throughout the whole country, to report on the causes, treatment and prevention of blindness and to make recommendations for the training, employment and care of the blind. A joint committee nominated by the central advisory boards of education and health, assisted him in this big task and together they submitted their report, which was published by the government at the end of 1944. For some time thereafter he was helping to implement the recommendations made, until his appointment came to an end in 1947. In that year, with the consent of St Dunstan's and the Government of India, he went on special missions to Malaya and China to supply those governments with surveys of blindness and to submit plans for establishing blind welfare on a wide national basis. To implement the scheme in Malaya the government appointed a

blinded officer of the Indian Army, Major D. R. Bridges, 7th Gurkha Rifles, trained at Dehra Dun, to be director of blind welfare. St. Dunstan's (India) was consulted, too, by governments or societies for the blind in Burma, Ceylon and elsewhere.

The staff at St. Dunstan's hostel for Indian war blinded in 1946-47, when the hostel had its maximum number of trainees, was as follows :—

Commandant	<i>Lieut.-Colonel Sir Clutha MacKenzie</i>	
Second-in-command and after-care officer		1
Adjutant	.	1
Pensions officer		1
Matron		1
Quartermaster		1
Welfare officer		1
Stenographers	.	2
Clerks	.	2
Workshop manager ...	.	1
Weaving masters		2
Matting and rope making section master		1
Cane section master		1
Music masters		2
Braille and typing instructors		2
Cooks		4
Water carriers	.	2
Peons	..	2
<i>Mahes</i>	.	8
Sweepers		10

In addition to the above the following staff was provided by the Indian Army :—

Jemadar	..	1
Sepoys for general duty	.	8
Nursing orderly	.	1
M.T. drivers	.	2

The following equipment was held during 1946 at St. Dunstan's Hostel :—

Braille slates	.	6
Braille machines		6
Braille writers		4
Typewriters		27
Talking book machine and records		7 machines 39 records
Braille shorthand machine	.	1
Braille mathematical slates		1
Handlooms (large and small, shuttle and automatic)		21
Wrapping machines	.	2
Wool spinning machines		10
Rope making machines	.	8
<i>Durie</i> and mat making equipment		7 sets
Basket and chair caning equipment		12 sets
Musical instruments		30

Braille library	172 books
Braille cards	24
Radio specially constructed for the disabled	1
Artificial limbs	4 sets
Special typewriter for use by the blind and handless	1
<i>Newar Addas</i>	20
Jute rope making	2
Gunny making <i>addas</i>	1
Braille watches	65

## STATISTICS OF ST DUNSTAN'S CASES

The DMS, who was also a member of St Dunstan's Indian committee, gave St Dunstan's all the help in his power, both in arranging for the transfer of serious eye injury cases to one of the military hospitals in Dehra Dun, and in posting a qualified ophthalmological surgeon to that hospital with attachment to St Dunstan's. The clinical records compiled by the ophthalmologist have unfortunately been lost. The data available is, therefore, not complete. The following tables give certain analyses of 328 cases<sup>2</sup> admitted/not admitted in St Dunstan's hostel, Dehra Dun.

TABLE I  
*Analysis by nationality*

	Entered St Dunstan's	Did not enter	Total
Indian nationals	124	21	145
Pakistan nationals	49 <sup>3</sup>	13	62
British	24 <sup>4</sup>	—	24
Gurkhas	32	4	36
Burman	1	—	1
African	4	3	7
Struck off roll after regaining sight (Record of nationality not available)	16	29	45
Insufficient information or lost track of	—	8	8
Total	250	78	328

TABLE II  
*Causes of Blindness*

Gun shot wound in action	139
Gun shot wound during training	6
Plane crash behind the lines during training	1

<sup>2</sup> The 328 cases include 3 totally blind wound cases of World War I who, having heard of St Dunstan's, asked if they might come.

<sup>3</sup> The numbers for India and Pakistan are based on the mens domicile as on 1 March 1948 by which time a large number of non Muslims had moved from Pakistan into India and Muslims from India to Pakistan.

<sup>4</sup> Eight received training in Dehra Dun and all entered St Dunstan's in England.

Nutritional deficiency as POW <sup>5</sup> ... ..	6
Accident ... ..	3
Methyl alcohol poisoning ... ..	4
Hysteria ... ..	7
Diseases of the eye (total blindness) ...	50
Diseases of the eye (partial blindness) .	22
Causes not known . . . . .	55
Struck off for recovery of sight (excluding hysterical cases)	45
Total . . . . .	338

Much of the blindness from ordinary diseases of the eye occurred among camp followers. In many of these cases the diseases must have been contracted, or already in an advanced state, prior to the man's enlistment.

The chief among these medical causes appear to have been trachoma with conjunctival complications, syphilis and small-pox.

Details of the weapons which caused blindness were among the lost records. It appeared, however, that the explosion of hand grenades took the greatest toll, while mortar shells, land mines and booby traps were about equal as the next chief causes. Bullet wounds seem to have taken a far lower proportion of sight than in World War I.

TABLE III

*Double Disability Cases<sup>6</sup>**Totally blind plus*

Double arm amputation . . . . .	4
Single arm amputation . . . . .	4
Loss of fingers on other hand . . . . .	1
Severe injuries to one or both hands . . . . .	4
Loss of four fingers on one hand ... ..	2
One leg amputation plus loss of fingers on one hand . .	1
One leg amputation ... ..	1
Severe cranial injury affecting mental balance of ability to learn or causing chronic headaches, epilepsy or paralysis	17

*80 per cent. loss of sight plus*

One arm amputation . . . . .	1
One arm amputation plus loss of left hearing . . . . .	1
One leg amputation ... ..	1

It cannot be stated for certain that 338 cases represented the full figure of those involved in serious loss of vision in the area covered by the activities of St. Dunstan's in India. There may be others, who, in spite of all the care taken by the Army, the medical services and the pensions administration, were never reported. Again, if the

<sup>5</sup> A considerable number of POW had their central vision affected, some to such an extent that, had their peace-time vocations involved reading and writing or other work requiring fine sight, they would have needed St. Dunstan's services, being mainly illiterate cultivators or labourers, however, their post-war economic situation was unaffected

<sup>6</sup> This table embraces only the more severe secondary disabilities, i.e., those which imposed an additional handicap to a man's economic and physical adjustment

experience of St Dunstan's in Britain after the World War I may be taken as a guide, many new cases of blindness arising from wounds, disease or exposure between 1939 and 1945, will occur for many years to come

#### TRAINING

The following were the aims of the training course —

- (i) to restore a man's confidence in himself, to enable him to continue to look on himself as a normal, vigorous man, ready to play his full part in family and community affairs, and to be his own master ,
- (ii) to encourage him to get about alone, to look after his clothes, to eat, talk and generally conduct himself as a normal man ,
- (iii) to train him to use the ordinary typewriter and to read and write Braille, both in English and in his mother tongue ,
- (iv) to teach men of a good standard of education and intelligence something of administration and to test them out in positions of authority with a view to their being started in business or being given posts in the furtherance of blind welfare throughout India ,
- (v) to train those of lesser qualifications in a handicraft, some village industry, suitable to each man's home environment and personal wishes ,
- (vi) to encourage the men to take an interest in recreations, such as music, card playing, knitting and physical fitness

Concurrently with the period of training, each man's individual position was gone into. His eye condition was checked to see whether any improvement in sight, visual comfort or appearance could be effected. His other wounds, if any, and any physical defects were treated, and convalescent diet given. Records, leave, pay, allowances, kit and pensions were all dealt with to bring them up to date and to secure all that was due. Home conditions were investigated to settle disputes over land, cattle, crops, family, mortgages, loans and so on. Negotiations were begun for resettlement, the building and repair of houses, the marriage of the single men, etc , in preparation for the day when the man would go home.

Accommodation was available at St Dunstan's for a number of the men's families, and latterly about 35 of them had families with them.

Upon a new man's arrival at St Dunstan's the commanding officer took an immediate step which, though very simple, had a great influence on his speedy adaptation. The officer commanding saw



him at once, made him feel welcome and gave him an initial encouraging talk. Then he sent for a capable blinded soldier, who had been in training for two or three months, preferably a man from the same part of the country or from the same regiment. The officer commanding asked the old hand to help the new man for his first few days, to show him his way round, to tell him all about St. Dunstan's, in short to start him on his way and to show him what a trained blinded soldier could do. The new man learnt from the old as he would learn from no one else. Example is convincing. The old hand, on his part, warmed with pride at being entrusted with the responsibility of taking a new man under his wing, would put his best foot forward. The new man came at once under the cheerful influence of all his companions. About him were plenty of blinded men like himself, all busy and happy, and before he knew it, he had accepted blindness and had turned his thoughts to his work.

St. Dunstan's observed a seven-hour working day, four on Saturdays, though shorter hours were kept by convalescent men. With interruptions for war leave, official holidays, additional hospital treatment and daily emergencies, this was by no means too long a day. The average man spent about three hours daily throughout the week on Braille, music, typewriting, English, general knowledge and knitting, and about four hours a day on his main trade—weaving, spinning, rope-making, mat-making, netting, or basketry. Many of the men learnt two of the major trades, while some, those who hoped to take up positions associated with the welfare of the civilian blind, learnt something of them all.

The instructors in music, Braille and typewriting were all blind, and, as time went on, the assistant instructors in the main trades were selected from among the blinded soldiers.

The instruction of the blind presents no great difficulty provided that the instructor is a master of his trade and has imagination and personality. The trades taught must of necessity be ones which come within the compass of the senses of touch and sound. The teacher, whether he be sighted or blind, must remember that he cannot teach his pupil by waving his hands about and pointing at this and that, but must place his hands upon the pupil's, showing him by touch every movement in each separate operation. Though the blind worker cannot see he can often offset this disadvantage; for example, he weaves coloured patterns by keeping his materials in separate compartments and by counting the strands of each colour he introduces.

The fixing of a precise training period presented a problem. In the early stages, while the men were still suspicious of St. Dunstan's, they showed a reluctance to come unless they were promised categorically that they would be free to return to their homes at the end of a set period. So many variants were present, both in the men's individual fitness and capacity and in the time occupied by different subjects, that no specific period could possibly suit all cases, but to meet the situation a period of eighteen months was fixed. Usually six of these months were taken up by leaves and further hospitalisation,

leaving but twelve training months As time went on, however, the men forgot about the set period and were content to stay until they had mastered all they wished to learn—in fact, some eventually wanted to remain on for many years It might be said that eighteen actual training months were sufficient for the normal fit man to complete his training

For the full success of the blind in occupations, not only do they themselves have to be thoroughly trained, but the general public among whom they live must also be educated by newspapers, cinema films in the schools and by the blind workers' own achievements, to be co operative and helpful towards them Unhappily this education of the general public—a lengthy process in the western world—has not yet penetrated into the villages, and it was felt at St Dunstan's that the weaker men would find it an uphill task to hold their own against the discouragements of the village, the difficulties of securing raw materials and of finding markets It was felt that at this stage of blind welfare it would better guarantee the blinded men's security and practical employment were they to remain on with their families in a St Dunstan's model colony containing a workshop for the men's employment, quarters, land for cattle and vegetables, school for the children, dispensary and so on Twice, over periods of several days, this plan was put to them and they were asked fully to consider its pros and cons, but on both occasions they voted against it, almost unanimously Towards the end of the training in 1948, some of the men said they regretted their earlier decisions and hoped that the colony scheme could be re-introduced By that time, however, the money, which had been offered for the purpose by the Viceroy and the Governor of the United Provinces, had been diverted for other groups of ex servicemen

Remaining as an employee in a permanent workshop calls for a different type of training from that required for village industries For the latter the man has to be trained to do every operation in his special trade, in the former, he needs only to learn one, two or three operations He can concentrate entirely on these and can reach a high speed and efficiency The management can plan the manufacture of far more varied and attractive articles for which a ready market can be had in a centre of population A colony scheme has the advantage, too, that satisfactory niches can be found for the double—disability men, for whom there is no really practical outlet in the village

These heavily handicapped men naturally presented the most difficult problems Two Muslims and one Sikh, in addition to being totally blind, had lost both arms None of the artificial limbs procurable in India was of any service, and many months had to elapse before the British Ministry of Pensions could send its highly specialised fittings, designed for double armed amputees These were modelled from plaster casts of the men's stumps which were made and sent to England by air During this time of waiting it was no easy matter to keep these men occupied, and they passed through phases of deep dejection and, in one case, hysteria The change which came over them once their prosthetic appliances arrived was remarkable

To enable these men to attend to their own daily needs a number of accessories were planned ; heavy deep metal dishes in which a man could move about his spoon almost freely without fear of tipping food over the side or moving the dish about the table ; showers and taps in their bathrooms with lever handles the armless man could turn on and off with his stump ; a tall pillar wrapped round with a large towel so that he might dry himself by rubbing against it ; a special lavatory pan on which he sat for cleansing purposes, there being a long lever, which could be operated with his stump and which controlled a fairly vigorous water jet on his rear. Walking sticks were designed to help these men to move confidently alone and also a wireless set which could be worked either by foot or by their stump. It was found that these men could make almost no headway with their training so long as each one had a full-time sighted attendant. One had to be a little cruel in order to be kind and to reduce the number of the attendants. Once, however, they had tasted the pleasures of regained independence, their progress was rapid.

One of them, an illiterate labourer before his enlistment, was turned into a peon about the place, a necessary post, in which the sense of being useful made him one of the most cheerful men at St. Dunstan's. He could manage feeding, dressing and everything, with the assistance of an orderly only once a day. Among his other accomplishments were playing the harmonium with his stumps and dancing village dances.

Another case, blinded and maimed at the age of seventeen, was particularly keen to make a success of his life. He achieved the same measure of independence as the previous case, but in addition he learnt English and, in spite of the lack of arms, typewriting, using the special St. Dunstan's typewriter. On his right arm, which had been amputated at the wrist, he wore a gauntlet into which fitted a light metal typing hammer. The typewriter keyboard was covered by a metal frame, divided into bays. By counting slots in each bay, he dropped his hammer into holes cut over each key. By practice his action grew quick and automatic, and his speed reached twelve words a minute. It was originally planned that he should be a publicity officer in any scheme for the advancement of the welfare of the civilian blind.

Other types of double-disability cases presented a variety of problems ; for example, men who had suffered the loss of one arm plus the loss of fingers on the other hand. There were quite a number who had suffered severe cranial injuries, leading to headaches, loss of co-ordination, partial paralysis or mental unbalance. Some had partially lost their hearing, a heavy handicap to a blind man.

Almost all these severely wounded men made a gallant fight to overcome their difficulties. Havildar Kuttan Pillai was typical. He arrived at St. Dunstan's blinded, his left hearing destroyed, his ear discharging and his left arm amputated. He was so depressed that it was with difficulty that he could be persuaded to speak or eat. Luckily a fellow Malayalee, who had arrived a fortnight earlier, was

already conquering his blindness and well on the way with his training. He managed to interest Kuttan Pillai, who soon mastered typing with one hand. He recovered a little sight under treatment, and thereafter took on NCO duties. He found by his own experiments that he could use the spinning-wheel, holding and controlling the flow of raw wool with his stump. He was trained in business methods and was successfully set up in a shop in Trivandrum.

Another case, Lakade, had lost a number of bits and pieces all over him—both eyes, several fingers from both hands, his right leg and a kidney. Though he suffered a lot and his temper wore thin at times, this gallant little man learnt to weave cloth, to make *newar*, to knit, to play the harmonium, to typewrite and to read Braille—also to get about remarkably well by himself.

Such cases as these are an ample demonstration of the spirit and determination of very severely disabled Indians, once the way is opened to them. It was, of course, a great pleasure to serve such men. They responded so magnificently and made all the effort well worth while.

A man's loss of sight is a matter which involves, not only himself, but his wife and children and his future domestic relationships. The family can contribute a great deal to his success, both by their attitude of mind and in giving practical help in any special difficulty, for example, in assisting him to set up the warp on his loom. Luckily sufficient quarters to accommodate the families of most of the men who wished to have their wives and children with them were available. In due course a welfare officer was added to the staff to deal with the many detailed tasks the family side involved. She saw to hygiene, clothing, skin disease, pre-natal care, baby welfare, special treatment and diets for under-nourished children, schooling and a thousand other matters. She held regular classes for the instruction of mothers in sewing, knitting and hygiene and gave cheerful parties and gifts on special occasions.

The sports in which the men took part included tug-of-war, putting the weight, throwing the cricket-ball, long jump, hop step-and-jump, cock fighting and wrestling. A number of competitions, particularly applicable to the blind, were arranged—blind man's buff, treasure hunt, straight walking competitions, musical competitions and so forth.

#### "A DAY AT ST DUNSTAN'S"

A record of one day in the life of an average trainee at St Dunstan's was as follows —

##### *Hours*

07 00	Wash and dress	Make bed
07 30	Early morning tea and <i>chapatti</i>	
08 00	Attend dispensary if in need of treatment	
08 45	Fall in for first parade of the day and inspection	
09 00	Start work in trade	In this case weaving of woollen cloth on hand loom

*Hours*

- 10.00 Attend Braille Class. (English and Hindi Braille).  
 11.00 Return to workshop for further work on trade.  
 12.00 Break off for mid-day meal.  
 13.00 Lecture in workshop on the theoretical side of the trades being taught.  
 13.30 Work in trade.  
 14 00 Typing class.  
 15.00 Tea break.  
 15.15 Work on trade.  
 16.00 Finish work for the day  
 16 00 to Take exercise by walking round the grounds or play cards or listen to the radio in the recreation room.  
 18 00 Evening meal.  
 18.00 to Listen to the radio in recreation room or any other form of recreation which he feels like.  
 21 00 Light out.

Married men drew rations once a week between 13.00 hours and 14.00 hours. They also spent most of their spare time in their own homes except for coming to listen to the news in the recreation room.

Occasionally the bands from the various regimental centres in Dehra Dun came to give musical concerts for the blind men. These concerts took place from 16.00 hours to 17.00 hours.

Once a week, on Saturdays, men were allowed to go to the bazaar for private shopping. They went in parties accompanied by a sighted orderly.

It is difficult to assess the average output of finished goods by trainees. They worked on different trades. Sometimes a man would learn more than one trade. Some after working for a short time on a trade were found to be unsuitable for it and were consequently transferred to another trade. There were still others who, owing to their physical handicaps in addition to their blindness, could not learn any trade as such. The restoration of their morale was the main objective in such cases. A rough idea of productions, however, may be gained from the following output of the best of the trainees.

Woollen shawl	One in one and a half days.
Woollen blanket	One in one and a half days.
Woollen scarves	Three in one day.
Newar	27 feet in one day
Honey-combed towels 30" × 50"	Two to three in one day.
Dusters	Three in one day
Chair caning	One in one day.

The finished goods, after having been passed by workshop manager and store-keeper as fit for sale, were passed to the finished goods store. It will be interesting to note that the value of finished goods sold during the first half of the financial year 1948-49, was Rs. 2,741.

On over-all working of the trades the cost of raw materials was covered by the sale of finished goods. The trainee was not paid for the work done as such. He was, however, given Rs. 8 per

month as pocket money. Later a system was introduced whereby the amount of money a trainee earned from the goods produced by him was credited to his account at the end of each month. The sum of Rs 8 paid as pocket money, was deducted from this amount. Trainees under this scheme earned up to Rs 25 per month. This amount really was labour charges. It was estimated that if men were to work in their villages and take all the profits they could, in the case of the weaving of woollen goods, earn up to Rs 200 per month and in the case of the weaving of other material, about Rs 60 per month.

It may be added that emphasis was laid not so much on persuading trainees to pay their way while in the St Dunstan's hostel as on raising their morale and making them into self-respecting and self-reliant citizens able to earn their livelihood after leaving the hostel.

#### ADAPTATION OF DISABILITY—MENTAL REACTION

A man's reaction to blindness depends upon a number of factors, but far and away the chief one is the attitude towards it of the people around him and the atmosphere in which he finds himself in the early days of his blindness. If his relatives and friends lavish doleful sympathy upon him, taking it for granted that he must spend the rest of his days in helpless idleness and scarcely crediting him with being mentally normal, he will naturally become profoundly depressed. His customary humour will evaporate, he will become silent and melancholy and will accept the role of a man whose active part in life is over. His family will discourage him from attempting to work at the occasional simple tasks which might help to fill the dark hours, so that he will never have the chance to discover the latent capacities which he still possesses. Shoulders bent, feet shuffling and voice quavering, he will soon be the traditional blind man, old before his time. Given a new hope at the outset, a real prospect of a fresh, full and interesting life, he will be a very different person, who may go through scarcely a day of depression. In nine cases out of ten, it is the early external influences which determine his reaction.

The next most weighty factor is the financial position in which the newly blinded man finds himself. While he may not be depressed in himself by his blindness as such, his state of mind will be profoundly influenced by whether he is or is not any longer able to feed and clothe his wife and children. Sometimes at St Dunstan's, for example, a man would suddenly lose all interest in his work if word came that a medical board had ruled that his loss of sight was not attributable to war service, and that, therefore, he would not be eligible for a pension.

A shock, too, to new hopes once these have been aroused, may plunge a man into profound melancholy. One such case was that of a Pathan who, coming direct to St Dunstan's from hospital, made excellent and happy headway. Then he went off to the Tribal territory on earned war leave, only to return with all the starch gone

out of him. His people, he said, had declared that he was much mistaken, if he was planning to drag down the status of the family by embarking on such tasks as weaving, spinning, knitting or basket making. Never had they, as proud tribesmen, ever stooped to such contemptible trades, and they would thrust him from the house and from the village if he attempted any such thing. His interest never revived and eventually he had to be sent home as untrainable.

A number of the men had been discharged to their villages before a notification of their cases reached St. Dunstan's, or sometimes they had suffered long periods of loneliness as the only blind man in a ward of sighted men.

The men who were recovered from their villages responded more slowly than those who came direct from hospital, and sometimes not at all. Indeed, about 30 men, sent home by their units, refused repeated invitations to come to Dehra Dun for training in spite of the rewards offered to the successful trainee.

A Burman, blinded in the early stages of the Japanese invasion of Burma, spent 21 lonely months sitting in his total darkness amid people who could not speak his language. Cut off from his home and people, he had reached such a state of depression by the time he entered St. Dunstan's that it was no easy task to rouse him. For several weeks he sought only to lie in bed, sobbing quietly and, if pressed to talk, replied monotonously, "I only want to die. If I can't have my eyes back, I only want to die." It was a blinded British officer who struck the first spark of interest. This officer, who belonged to a Burmese regiment, had lost both arms. He said to the young Burman, "Saw Jacky, you must have my Braille watch as a gift from me. You will be able to tell the time by it. You are luckier than I am, you know, for you have hands with which to feel." He turned into a good trainee, learning Braille, typewriting, weaving, netting, village basket-making and the harmonium; and returned happily to his home in Burma when the war was over.

There was the occasional man, too, whose attitude towards blindness was coloured by his religious belief that blindness was a punishment, but, broadly speaking, the reaction of Indian troops to blindness appeared to be very similar to that of British troops, or perhaps one ought to say of British troops in World War I when knowledge of the capacities of the blind was not nearly so widespread as it is to-day. In this last war almost every British soldier before going on service knew of St. Dunstan's and knew what blind people could do. If he found himself blinded, he already had the calming thought that a gateway stood open to renewed life and vigorous interests. Every effort was made to spread knowledge concerning St. Dunstan's throughout the Indian services, and in this St. Dunstan's was generously helped by the press, the military journals, the cinema and by Army orders.

To sum up, provided that the newly blind man is given new hope at an early stage, that he is kept free of the old-fashioned depressing influences, that he is started on his training as soon as he is

physically fit enough and that he is freed from financial anxiety, he need not, and seldom does, go through a period of depression or shock. Under these favourable circumstances many men do in fact adapt themselves psychologically to blindness with no noticeable mental crisis and little physical clumsiness.

#### PHYSICAL ADAPTATION

Physical adaptation varies considerably with such factors as age, secondary disabilities, intelligence and treatment. Youth and physical fitness, courage and enterprise are great aids to the adaptation of the senses to give greater service under the changed circumstances. A man develops, for example, the senses of hearing, orientation, and of the presence of obstacles (said to be a natural human radar sense), the feeling of the ground under his feet, the power to deduce many details of the world around him from the touch of the breeze, sun and shadow, warmth and cold, humidity of the air and smell. These developments come naturally to the man who moves alone, who strives to regain personal independence, but slowly to the timorous soul who hates to move without a sighted attendant.

Advancing years, ill health, lethargic temperament, nervousness and secondary disabilities, most of all deafness, hinder re-adjustment. Here, too, it is the early influences in his new world which play an all important part.

As previously mentioned, St Dunstan's, both with its own staff and in conjunction with military hospitals, took all possible steps to remedy the man's physical defects. Beyond this, however, his return to normal physical fitness was inextricably bound up with his recovery of mental fitness, happiness and confidence. His mental and physical recuperation under modern treatment amount almost to one and the same thing.

#### CONSTITUTION AND FINANCE

St Dunstan's work in India was officially administered by St Dunstan's all-India committee for the war-blinded, representing St Dunstan's council in London. It was formed soon after the Viceroy, the Marquis of Linlithgow, offered in 1939 to set up a St Dunstan's section of his war purposes fund. It was composed about equally of representatives of the various branches of the government and the armed services associated with the blinded man's welfare and of representatives of the voluntary contributors. Sri Ramaswami Mudaliar, Sir Firoz Khan Noon and Sardar Baldev Singh were its successive chairmen, all of whom took a keen personal interest in St Dunstan's development. Gradually the voluntary share in control diminished, and passed instead to departmental officers, this was not a sound development. The St Dunstan's type of service depends ultimately for its success on the direct interest of the general public and their participation in administration. Government can and



should co-operate, but for the valuable human side to flourish, control of administration should not be entirely in official hands. This is an important principle in all services of this nature.

At Dehra Dun St. Dunstan's was assisted by a particularly useful working committee, composed of responsible Indians and British, experienced in business, banking, land and village affairs, industrial service and Gurkha matters. These members soon came to know the men and the work, and were of the utmost assistance in advising the management.

St. Dunstan's section of the Viceroy's fund was opened in November 1939, with a contribution of one lakh of rupees from the Viceroy's main war fund, and grew steadily as generous donations flowed in from all parts of India, from the princes, the commercial communities, tea planters, sports associations and private individuals.<sup>7</sup> The appeal at that time was for aid for the war-blinded men of the Empire, St. Dunstan's contracting to meet expenses in India from the general Empire fund. Immediately, St. Dunstan's opened a training centre in Dehra Dun many contributors quite naturally earmarked their payments for expenditure in India. Accordingly a special Indian account was opened. Contributions now came increasingly from provincial war funds, staff war funds, women's war services and military units. No part of India was more generous than another, and gifts were received also from Australia, Burma, Canada, Ceylon, East Africa, Iraq, Malaya, Middle East, Nepal, the U.K. and the U.S.A.

Receipts from the opening of the fund in 1939, until 29 February 1948, amounted to approximately Rs. 33,00,000, comprising approximately Rs. 15,00,000 for the Empire fund and Rs. 18,00,000 earmarked for or transferred to the Indian fund. The total value of investments, equipment and other assets in the hands of the Indian committee on 29 February 1948, stood at Rs. 13,31,885. This sum was divided on the partition of India between the Indian committee and a new Pakistan committee, Rs. 9,85,595 to the former and Rs. 3,46,290 to the latter.

#### CONCLUSION

At one point, as has been recorded, the committee felt that the prospects of success were so slender that it almost decided against the setting up of a training centre. Contrasted with those days of doubt, success when it came was all the more stimulating. The following example quoted by the commandant of the St. Dunstan's hostel for Indian war-blinded very well illustrates the measure of the success achieved at Dehra Dun.

<sup>7</sup> The contribution of the Army towards St. Dunstan's hostel included accommodation, rations, clothing, transport, payment of certain members of the civilian staff and the provision of a number of signed Army personnel as orderlies. The cash value of the above is estimated to be about Rs. 81,000.

"I shall never forget the sense of achievement and deep reward which the return of our first trainee to St Dunstan's gave us. I had come across him first in the ward of a military hospital in Karachi early in 1943, a tall handsome Dogra—at least he had been. Now he was crumpled, wretched. Deep sobs shook his wilted frame as I talked. As I tried to encourage him by opening before him a new life, he held out for my inspection a gashed forearm and fingers rigidly bent. He thanked me, but in a broken voice insisted that we could do nothing for him and that he must accept his fate. Nevertheless, with his wife and two children he came. He turned out to be intelligent and quick. He rallied at once, and with massage and use his wounded arm and hand regained strength and pliability.

Now a year after his return home he was back to see us. This was his story.

"I am very busy and very happy. The fine house, you gave me is finished. With my rope machine I make all the rope for the farmers round about. They bring me the fibre and I spin it. I make *newar* for the *charpoys*. I type the letters for the village, either in English or in Roman Urdu, and charge eight annas a letter. The village people gather much about my house. They see the different things I do, and so I get more and more work. Now I have come to ask a favour of your honour. A fine stream flows past my house. If you would lend me the money with which to build a grinding mill upon it, it would give me still more work and even greater prosperity, and I should be very grateful."

"He was upstanding, strong, confident—no trace of that unhappy hospital patient of three years before. Of course, he has his mill, and may the grinding of its stones and the splash of water be music to its owner for many happy years."

### APPENDIX III

## The Queen Mary's Technical School for Disabled Indian Soldiers<sup>1</sup>

(A Vocational Rehabilitation Centre)

The school was founded by Lady Willingdon, the wife of the then Governor of Bombay, on 16 May 1917, during World War I, with the object of helping invalids from the Defence forces to learn some trade and thus earn an independent living and also supplement their pensions. King George V and Queen Mary gave their patronage to the school and permitted the school to be named after Queen Mary. It started its career in Bombay and was transferred to temporary huts in Kirkee in 1922, and finally housed there in its own permanent buildings, costing nearly two and a half lakhs of rupees, in January 1931.

The school is a charitable institution, its total assets amounting to more than twenty-one lakhs of rupees having been contributed by donations from the public, war relief funds, other charitable funds and the armed forces post-war reconstruction funds. The affairs of the school are managed as a limited liability company by a board of directors of which the sub-area commander, Poona, is the chairman.

The permanent staff of the school in early 1948, was as follows:—

Superintendent	.	..	1
Instructors	.	.	13
Clerical establishment			7
Administrative staff		.	3
Inferior staff			18
<hr/>			
Total			42
<hr/>			

Out of this total fifteen, including the superintendent, were retrenched in the middle of 1948, with a view to averting a financial breakdown. Colonel B. Basu, IMS (retired) was then appointed honorary superintendent and secretary. Colonel Basu worked in an honorary capacity for thirteen months after which, on receipt of substantial assistance from the armed forces reconstruction fund, he was granted a salary.

There is accommodation for 100 trainees at a time at the school. Prior to 1948 a certain number of students' families were also accommodated in the school and given free rations. This practice was discontinued on grounds of economy. The students come from all parts of India. Except for a couple of years after World War II this has been the only institution of its kind in the whole of India.

The average strength of students in the school was quite satisfactory up to the middle of 1940. The number of trainees thereafter

<sup>1</sup> C/2/46/H(M), L/5/28/H(M)

fell off, presumably due to the fact that some of the less disabled soldiers were recruited in the Army for garrison duties. On the cessation of hostilities the average number of admissions in the school again rose to 97 (1945/46). In 1946, however, disabled soldiers from the school were transferred to various SCRCs attached to military hospitals. The SCRCs were later closed but the Ministry of Labour, Government of India, admitted a certain number of disabled soldiers to their various training centres till the middle of 1948. Since then the number of students has steadily increased and by 1950 the average had gone up to over 90. This was due to the great interest in the school shown by the heads of all service formations. Special efforts were made to see that each passed out trainee is suitably provided for after he leaves the school. In addition an Indian Red Cross contribution of Rs. 200 per trainee has been available through the Ministry of Labour for helping them to start a trade.

The following table shows the subjects taught and the number of successful trainees from the inception of the school till the end of June 1949 —

<i>Subject</i>	<i>Period of training months</i>	<i>Year of opening</i>	<i>Year of closing</i>	<i>Number granted diplomas</i>
Oil engine driving	6	1917		882
Motor car driving	6	1917	1945	1,104
Tailoring	8	1917		297
Hosiery knitting	8	1917		228
Hand and power loom weaving	12	1923		151
Electricity	18	1938		76
Carpentry	12	1945	1947	3
				<hr/> 2,741 <hr/>

Training is given free. While under training the students get free cooked food, accommodation, clothing and railway journey expenses from and to their homes. They also receive in addition to their pensions pocket money of Rs. 12 per month as well as wages for saleable work. The running expenses of the school amount to nearly one lakh of rupees per year.

The products of the various departments like weaving, tailoring and hosiery are popular. Successful students from the electricity section have no difficulty in finding suitable employment. Oil engine drivers are in great demand now for irrigation pumps and some of them with a short course of further training have become excellent tractor drivers. A number of trainees, on passing their diploma examination, have been engaged in the tailoring, hosiery and weaving sections of the school. They are paid on the basis of the amount of work done. A minimum wage of Rs. 30 per month, however, is guaranteed. This inculcates the idea of self-help, gives them much needed practice and speed under guidance and enables them to leave the school with confidence in their future.

In addition to the training, attention is also given to the psychological rehabilitation of the inmates. Instead of looking upon the institution merely as an asylum for hard times and exhibiting a defeatist helpless attitude, always complaining and expecting help and sympathy, a new spirit of self-help gradually develops and the inmates are able to take an interest in activities even outside their class rooms. Various indoor and outdoor games and recreational facilities help to keep up their morale.

The symbol of the school is that of a tree which has been saved by a prop after having one of its main branches broken down and the others partly broken. Such a tree inspires the ideal of service in spite of disability and this is expressed in simple Sanskrit *ĀHATO-PI PRABARDHE AHAM* (THOUGH HURT I GROW) <sup>1</sup> The motto is placed on a mauve background—this particular colour being that of the school.

The flag of the school is tricolour, navy blue for Navy, red for the Army and light blue for the Air Force, indicating the three services from which the invalids come to the institution.

The school has existed for thirty-three years. Nearly three thousand men of the fighting services who, in serving their country, have sacrificed their health or their limbs have been helped in the process of social re-integration here. The institution is of national importance as the after-care of the war-cripple must be a national responsibility.

Syllabi of the various subjects taught at the school are as follows —

### THEORY AND PRACTICE

#### Hosiery Knitting

<i>Lessons</i>	<i>Period-Weeks</i>
Different types of knots .	.. 1
Winding of different types of yarn .	. 2
Heel and toe joining ..	1
Darning and mending	1
Tennis socks .	.. 1
Plain socks	. 2
Rib socks .	3
Filling and adjusting of machines .	. 2
<i>Ganjee</i> machine fitting	2
<i>Ganjee</i> cutting	2
Finishing and packing ..	1
Mufflers .	1
Plain pullovers and sweaters .	2
Fitting of flat machines	2
Fancy sweaters .	2
Sweater cutting and sewing .	3
Jackard machine sweaters .	1
Adjusting of machines .	1
General training . .	2

*Oil Engine Driving—Duration of Course—Six months*

*Theoretical (period—three months)*

*Period Weeks*

Internal combustion engines, classification	}	1
Classification of fuels and their use according to the various compression pressures		
Vaporisation and atomisation of fuels	}	1
Ignition, various methods used in detail, i.e., compression ignition, hot bulb, electric ignition, etc		
Classification of governors and governing	}	1
Valves, their functions, setting of clearance and timing		
Injection, injecting devices and fuel oil feeding	}	1
Cooling water supply, various methods of application i.e., thermostatic control, thermosyphon, radiator cooling, pump circulation etc		
Different parts of engine, mechanism and their function, and fitting detail	}	1
Lubrication, various methods i.e., force feed, splash feed, ring oil bath, etc		
Self starting devices, air receivers, safety valves and adjustment	}	1
Compound oil engines, their operations and order of firing		
Diesel engine details, autocycles, two stroke cycles, operations	}	1
Alignment of crankshaft, lining and levelling		
Air compressors, single stage and double stages and of safety valve, management	}	1
Starting and stopping of engines, precautions		
Engine faults, breakdown, detonation, pre ignition knocking, airlock, etc., and their remedies	}	1
Taking over charge of an oil engine and pumping plant—engines		
Different types of oscillating and rotary water pumps and their fitting, care of foot valve, impeller, glands, plunger and leather buckets	}	1
Internal engine performance, heat losses etc		
Definition of indicated and brake horse power, explanation of simple method of using an absorption dynamometer	}	1
Petrol engine performance, carburation, distributor and electrical ignition system		
Transmission, gears, AC pump details etc	}	1
Instructional tours, revision		

*Practical (Period three months)*

Use of spanners and tools	}	1
Filing, chipping and fittings square and triangular jobs, fly wheel key etc		
Drills and drilling with various speeds cutting threads with dies and taps, use of screw gauge	}	1
Soldering of copper or brass pipes		
Making of chisels, tempering and annealing for different uses	}	1
Belt jointing, cutting of various packings		
Use of calipers and filler gauges	}	1
Assembling and disassembling of engines, valve grinding, fitting, clearance adjustment, engine timings, bearing fitting, re-metalling, scraping, fitting of flywheel, crankshaft and accessories		

General maintenance of engine plants	
Drawing, sketches of engine parts	
Running of flour mills, dressing of stones and fittings	1
Revision and test examination	1
<i>Weaving Section</i>	<i>Months</i>
Short notes on different textile fibres with their origin properties and uses, winding of yarn and different kinds of warp	1
Definitions of such technical terms as counts of yarn, reeds and healds, lea, harks, etc. Weaving <i>newar</i> , tape, etc., simple arithmetic and tables of weights and lengths	1
Yarn testing and analysis of most common patterns of textiles, plain weaving and their ornamentation, calculations, to find the weight of warp and weft and prime cost of fibres, simple kinds of shedding and picking devices	1
Twill weaves of three to eight ends, satin weaves of four, five and eight ends, diaper, diamond and other fancy weaves with drafting and lifting schemes. System of finding counts or reeds and healds for simple weaves	1
Honey-comb, huck-a-back and diamond patterns. Further training in diaper and diamond and other fancy weaves with drafting and lifting schemes. Knowledge and use of design paper and counting glass to reproduce simple designs on paper	1
Extra warp and weft designs for <i>dhoti</i> and <i>saree</i> borders	1
Designs based on colour combinations, weaving napkins, dusters, towels, etc.	1
General information regarding markets for purchase of raw materials and selling finished goods	2
Power loom-theory and practice. Knowledge of use of lever, barrel dobbies for borders and simple designs, practice in pegging of different designs, dobbie patterns for <i>dhoties</i> and <i>sarees</i>	3
<i>Tailoring</i>	<i>Period-weeks</i>
Use of the inch-tape and taking of correct measurements	1
Button hole, darning, cross stitching and piping	2
Use and care of the machine, plain stitching of ends, borders, table cloth and napkins	1
Cutting and making of white cotton caps and progressive list	1
Cutting and making of underwears	1
Cutting and making of <i>bamans</i> , pressing and folding of garments	2
Cutting and stitching of <i>jubas</i>	2
Cutting and stitching of pyjamas	2
Cutting and stitching of four shirts for boys—open neck	4
Making of four pairs of shorts for boys	1
Making of four half sleeve shirts with different types of collars	2
Making of full sleeve shirts	1
Making of boys half pants	4
Making of full pants <i>khaki</i>	2
Making of white pants and cutting thereof	2
Making and cutting of coat and stitching thereof	3
Cutting and stitching of bush coats	1
Total	32

*Electric Section*

Theory—9 hours weekly

Mathematics—9 hours weekly

Practical—18 hours weekly

*Lessons**Weeks approximately*

Weights and measures—Metric and British units of length, weight area, volume, conversion from one into another unit of work, energy, power, foot—lbs H P hour watts kilowatts, calculation of in put, out put and efficiency of machines	3
Conductors and insulators	2
Wires and cables	2
Specific resistance, application of formula $R = \frac{S \times L}{M}$ in its three forms	3
Magnets—Ohms law $V = C \times R$ practical problems	2
Effects of electric current, $C = \frac{V}{R}$ , ample problems	2
Switches— $R = \frac{V}{C}$ sufficient problems	2
Fittings and accessories— $W = V \times C$ , ample problems	2
Lamps, internal drop, line drop, E or F terminal volts	2
Fuses current carrying capacity of fuses and conductors	2
House—wiring—connecting resistances in series	2
Types of house wiring, general problems	1
Joining—general problems	1
Illumination, problems on illumination	2
Batteries, problems on connecting batteries in series and parallel	3
Ohm's law, series parallel connections, connecting voltmeters, ammeters, etc	3
Principle of dynamo, calculation of in put and out put efficiency of generators	2
Motors—calculation of regulating and starting resistances, speed regulation reversion	3
Bells, and bell indicators general problems	2
Armature winding, revision of the previous formulae	1
AC Current—calculation of $x = 2\pi$ FL Inductive reactance	1
Transformers, Calculation of Power Factor, $PF = \frac{KW}{KVA}$	2
Measuring instruments, calculation of shunts, voltage and current transformers	2
Megger, calculation of $Z = \sqrt{R^2 + X^2}$	2
Overhead wiring, general problems	2
Automobile electricity, general problems	2
Indian Electricity Rules 1922, and Fire Insurance Association Rules	2
House lighting—revision	2
Protection from shocks, lifts, revision	2

The following equipment for training is held in the school —

*Oil Engine Driving Section*

20 H P Ruston oil engine with accessories, starter and fittings  
 Skoda 2 cylinder vertical, 1 stroke, stationary cold starting, diesel engine, type 2 S 110 developing 20/30 H P at 1,000/1,500 R P M complete with standard equipment



Armstrong Siddley, 5/7 H P. diesel oil engine with tools.  
 5/1 Lister vertical diesel oil engine fitted with two fly wheels, oil tank, starting handle and accessories.  
 2 Flour mills, one English vertical Sardar and other 18" Stamford flour mill complete.  
 Lathe 6 $\frac{1}{4}$  complete.  
 "Peter" Pulsometer portable pumping plant complete with accessories.  
 Drilling machine 20" complete, Emery grinder (with Emery) 2 wheels.  
 Vice screw bench, and machine stone grinder.  
 Pulleys and shaftings various types.

*Tailoring Section**Numbers*

Treadle Singer sewing machines	25
Hand Singer sewing machines	6

*Hosiery Knitting Section**Knitting Machines*

Harrison	..	11
Durbar	..	2
Foster	.	9
Ludhiana		2
Flat Machine		1
Jacquard		1
Circular (Ludhiana)		1
Overlock (Singer)		1
Aprons		1
Winding		1

*Hand and Power Loom Weaving*

Frame fly shuttle looms sizes 24" to 56" width	11
Power driven automatic machine	1
Newar loom 18"	1
Carpet loom 50"	1
Pit loom 30"	1

All looms complete with accessories

Warping machine, winding wheels, heald stand, etc., complete for imparting training

*Electricity*

Motor generator set—screen protected type, compound wound D C generator 230 volts, 1,500/1,400 R P M with all accessories complete used for converting A C current to D.C for battery charging etc

1'6" all geared master motor driven Lathe complete with 3/4 H P. Motor and Starter, used for truing armatures and for taking cuts on commutator—also for winding coils, etc.

Compound wound D C. grinder motor 1/4 H P 220 volts D C. complete with 2 grinding wheels, used for grinding lathe tools

Drill machine complete with bench stand

A C Squirrel cage, Rotor motor, 400 volts, 50 cycles, 3 phase,  
 3 B H P complete with pulley, used for connecting same to  
 delta switches or auto transformer starters  
 Insulation tester for cables and machines 0 100 megohms  
 Continuity tester 0 50 megohms  
 Transformers 1 K V A 50 cycles 400/230 volts  
 Lamp bank complete with lamps  
 Rectifier suitable for 230 V A C —used for battery charging  
 Drip proof shunt D C motor 230 volts, 2 B H P 2,300 R P M  
 with slide rails E A C type B T E R starter  
 Watt hour meter D C 230 volts 5 amps  
 Regulators—various amps  
 0 5, 0-10, 0 20 ammeters  
 Voltmeters A C or D C —various volts  
 Moving iron and moving coil ammeters—various types  
 Dyganite battery with ebonite separators, Nife battery complete  
 and heavy discharge battery tester  
 A C and D C relays of various volts  
 Water rheostat, low tension arrestors, Avery counter scale for  
 weighing armature winding coils  
 Screen protected type alternator with switch board complete

*Carpenter tools complete*

Seven sets

## APPENDIX IV

### The Friends Ambulance Unit in Burma, China and India

As a religious body the Society of Friends, or Quakers, makes its own distinctive contributions, not least among which are a tradition of pacifism and the urge to express its religious faith in positive action. "Live in the life and power that takes away the occasion of all wars. Seek to take your part in the ministry of reconciliation between individuals, groups and nations". This has always been a fundamental principle of the society's life.

This urge to express its faith in work has often led the society officially and corporately to undertake relief work at times and in situations of great suffering and stress. It has also inspired individual Friends, separately or in groups, to action which has the general support of the society's members but is not an official responsibility of the society itself. One such group of Friends with others of like mind, in 1939, took upon itself the task of reviving the Friends Ambulance Unit.

The unit had existed in World War I, first as the Anglo-Belgian Ambulance Unit and later as the Friends Ambulance Unit (FAU). It had numbered over a thousand men in France and Belgium and had worked on ambulance convoys and ambulance trains with the British and French armies. In 1919 it had broken up. But when, during 1938 and 1939, war seemed increasingly inevitable, its members determined that for young men of the new generation who would not fight, there should be the same opportunity for hard and vigorous service.

The members of the first training camp (the first of twenty-two camps) who assembled near Birmingham in September 1939, issued a statement declaring their aim. "We purpose to train ourselves as an efficient unit to undertake ambulance and relief work in areas under both civilian and military control and so by working as a pacifist and civilian body where the need is greatest to build up a record of goodwill and positive service".

The result was that during the seven years of the FAU's existence in its war time role over 1,300 young Friends and others who shared their views passed through its ranks. Not all of these were in the unit at the same time; the highest number in membership at any one time was 811 (in August 1944), for recruitment took place gradually as one training camp succeeded another. At the other end, many members had to leave for paid service elsewhere before the conclusion of the war. For membership was on a maintenance basis at home and overseas alike—food and clothes and a small pocket money allowance for those who needed it. Later other small allowances were instituted to make it easier for the man with dependents to remain

a member, but it was always a struggle for anyone who was responsible for others besides himself

Many who met the unit in various parts of the world were surprised at the smallness of the total numbers. The unit had teams in Finland and Norway in 1939 and 1940, in the Middle East and Greece (where sixteen men were taken prisoner and the rest escaped by the skin of their teeth), with British troops in the Western Desert, in Italy and France and Germany, with the Fighting French in Syria, North Africa, Italy, France and Germany, in Syria and Ethiopia, engaged on civilian medical work in remote hospitals and clinics, in Burma, China and India, and, as the war drew to its close and for a year afterwards, among refugees, displaced persons and civilian victims of the fighting in Sicily, Italy, Greece, Yugoslavia, the Dodecanese, France, Belgium, Holland, Germany, and Austria. The variety of work was almost limitless, the common factor was the relief of human suffering and hardship. For this work seventeen members gave their lives during the period of the war.

Nor was work overseas the only service. Most members spent many months, even years, on routine work in one or several of the eighty three hospitals in Britain in which the unit at one time or other provided orderlies and porters whose duties varied from skilled nursing to emptying pig bins. They served too as emergency relief workers in the shelters and rest centres of London and bombed provincial cities. Work and training at home, valuable in themselves, were the nursery of medical personnel, drivers and relief workers for service overseas.

The unit was a voluntary organisation dependent largely on private donations and subscriptions. Ultimately responsible for its affairs was a council, largely composed of men who had been members in World War I, but the day to day running of its business was in the hands of its own officers under an executive committee of seven or eight unit members, of an average age of about thirty, recommended for appointment by the unit as a whole. The unit, in its strength and weakness, was a body of young people.

It is easy to glamorise the work of a voluntary group of young men and women. The achievements of the unit were many, in fact it was the measure of its success that so many tasks were accomplished by corporate effort, enthusiasm and mutual loyalty of which its members severally would never have considered themselves capable. But the unit had its failures too, like every other body in war time it had its disappointments and frustrations, its long periods of deadening delay. And what success it achieved it owed not only to its own efforts but also to the warm support and encouragement of its friends in many quarters, including government departments, the fighting services and the joint war organisation of the British Red Cross and St John which sponsored most of its work overseas and so enabled its members to serve in war zones under the Geneva Red Cross Convention. The unit encountered some opposition, it is true, but far less than a body of pacifists might have expected in time of war. When armies

are organised for total war it is not easy to find room for a body of non-combatants which insists on retaining its identity, which has to pick and choose what jobs it will and will not do, and which claims the final authority over the disposition of its members. And yet senior army officers who handled men by the thousand and ten thousand would, with very few exceptions, do their utmost to accommodate a group of men with whose views they disagreed even if they understood them.<sup>1</sup>

#### BURMA

With the fall of France in the early summer of 1940, the door had been closed on service in Europe. In the Far East the war had already dragged on for three years and inevitably the minds of many members turned to the possibility of work in China, partly because of China's obvious need, partly because of the constant urge within the unit to find fields of work overseas. In August 1940, after preliminary negotiations in London, an offer of assistance was cabled to the Chinese Red Cross and the IRCC. The reply welcomed assistance.

Thus a special joint China committee was set up through which experts on work in China were able to advise the unit, officers were appointed for the enterprise and the first party of forty was selected from a large number of eager volunteers. There was never any lack of volunteers for China. In addition, a unit officer was sent to the USA to negotiate for funds with the American Friends. American financial assistance was extremely useful for work in China. In addition, the British Government and Canadian Red Cross also rendered aid.

Nor was money the only assistance that came from across the Atlantic. Young Americans and Canadians, one or two at first but later a substantial number, were recruited as members of the convoy, indeed, the first commandant was a Canadian surgeon who had spent most of his life on medical work in China. The addition of New-Zealanders to the convoy later in the war, together with Chinese members, made the convoy the most international of all unit projects.

Meanwhile the forty British members originally selected went into special training in medical work, driving and mechanics and in the Chinese language. There was time for training since it was not until May 1941 that an advance party of four finally set off for Rangoon. The remainder followed in small groups, the last leaving in October 1941, on a troopship bound for Singapore. When they reached the Far East, the U.K. was already at war with Japan, but they had got away from Singapore before the Japanese entered the fortress.

<sup>1</sup> The full story of the FAU's work throughout the world has been told elsewhere ('*Friends Ambulance Unit*' by A. Tegla Davies, publisher for the Council of the FAU by Geo. Allen and Unwin 1947. On this work the whole of this chapter is based). The purpose of this brief introduction is no more than to provide the setting for a fuller account of the unit's work in the Far East (H/5/52/H(M)).

The first four arrived in Rangoon in July 1941. There one stayed behind to receive ambulances and equipment which were soon to arrive from America, the others scattered to prepare the ground in Chungking, Kweiyang and elsewhere, and to recruit Chinese students in Chengtu. It soon became evident that ambulance work, in the narrow sense of the word, was not the most urgent task. Except for the five doctors in the party, the most useful function of the unit would be the transport of medical supplies and petrol, now that the Burma Road was the life line of Free China. Negotiations with the four organisations which were already collecting and distributing imported medical supplies—the Army medical administration, the Chinese Red Cross, the National Health Administration and the International Relief Committee—led to the unit taking over the transport fleet, garage and equipment of the International Relief Committee. In return the committee paid operating expenses while the Chinese Government, through its Executive Yuan, paid all expenses incurred in the haulage of supplies undertaken in the name of the National Health Administration. As its first headquarters the unit took over the International Relief Committee godown in an ancestral temple down a shady cobbled alley in Kweiyang.

As men, trucks and supplies arrived in Rangoon, convoys were formed and despatched up to Lashio and beyond. Thus did the members make their first acquaintance with Mindilay and Mymyo and the Gokteik Gorge and push on across the Salween and Mekong Gorges to Kunming.

Once in China, members scattered to their various fields of work. For the majority this meant an immediate return down the road to Burma to bring up as much petrol as they could carry before the Japanese got to the oil-wells. To help the work small depots were established on the truck route at Kutsing, Paoshan and Hsiakwan.

‘This was no ordinary convoy, no routine haulage of supplies. There was an element of uncertainty, of insecurity about it, it was a race against time and the Japanese advance’<sup>2</sup>

“We are now in the grip of the worst road in the world. With windcreens and doors rattling loud enough over such a surface to drown all other noises and make conversation impossible, we keep an average speed of some fifteen miles per hour, with a 150 to 200 yards interval separating the trucks.”

For every member then the task was the same—rushing supplies from Rangoon to Lashio before the Japanese entered the port. A group of reinforcements arrived from England, and from the USA came the unit's own X ray, surgery and workshop trucks which were unloaded, assembled and driven up to Lashio.

By the end of February 1942, Rangoon was on the point of falling. But the docks were still full of medical and mechanical

<sup>2</sup> All passages in the text shown as quotations are derived from reports and letters from the field.

supplies, and on 2 March 1942, a group of volunteers returned to the port, which was in a state of semi-siege. They loaded as many trucks as they could manage and, on the 6 March 1942, drove out of the city as part of the Army Headquarters ordnance convoy along the Prome Road to Lashio.

The moves and counter-moves of the next few weeks would be impossible to relate here. Out of them there emerged three main groups in Burma. One was retained on the urgent work of transport, to shuttle up the road to China the supplies which had been piled into Lashio. A second group of eight men with six trucks had been attached to the American surgeon, Dr. Gordon Seagrave of the American Baptist Mission, who had started mobile surgical work with the Chinese Fifth Army on the Toungoo front.

"We discovered the Seagrave Unit just beginning work. Wounded who had already been treated were lying on every available bed in the building and the rest were on the floor, on the steps, on the little stone path to the main door—in fact just wherever shade could be found. A further truck load had just arrived, and we had nowhere to put them while the theatre was being prepared".

The unit's main job was to bring the wounded to the hospital from the divisional clearing station. Seagrave's comment on the team in his book, 'Burma Surgeon', is "Friends are the funniest Englishmen I ever met. They pick those blood covered patients up in their arms as if they were sweet and lovely".

First aid, driving, servicing, theatre evacuation, all this went on behind the Chinese front as it slowly retreated. By the end of April 1942, they were at Sagaing, twelve miles from General Stilwell's new headquarters at Shwebo.

The third group was a new mobile medical team which had just come down from Kweiyang. Passing through Lashio, deserted Maymyo and the ruins of Mandalay, they reached Sagaing and Shwebo and fell in with Major Seagrave's team. The group with Seagrave took part in the retreat with General Stilwell.

"For several days now we got up at four so as to be away at dawn. We would walk till 11.30 or 12.30 and halt. .. At 4.30 we would go and march for another two or three hours.

On the first morning three people cracked up. Someone made a bamboo raft for all the three and offered to drag it all afternoon. The river was an infuriating one. In some places it didn't reach to your knees; in others it was over your head without warning. The shallow places were the worst because if the raft stuck it was the very devil to dislodge. When it was dark we had to have one, two or three men wading ahead with torches.

The following day brought us to a wider river and we all decided to go down it on rafts to save our feet. We spent five hours erecting shelters of leaves on our three rafts and embarked at eleven in the morning. Next day was a red-letter day. An aeroplane flew

up stream, had a good look at us, and then went back and forwards dropping food and cigarettes on the bank

On Wednesday, 13 May, we crossed the Chindwin river in long narrow boats hollowed out of three trunks. We were getting into the Naga Hills now. We crossed the first watershed and had a fine view of the hills towards India in front of us and the plain we had left behind.

After two more days we were met by coolies sent by the Indian Government to carry our gear, and as the rains were threatening the General pushed on past the next camp to a Naga village."

The other medical team had been attached to the British forces and from Kinu, a few miles north of Shwebo, retreated to India by Kalewa, Tamu, the Chin Hills and Imphal. At Kalewa they found a lot of casualties. "We borrowed an old Ford lorry, and kept both this and our Chevrolet working hard at the big task of carrying wounded and civilian evacuees on the way towards India and peace. Everything was in a strangely tense and unnatural state. There were no shops, no normal living conditions. The only people we saw were army units and the great tragic hordes of refugees."

Meanwhile the transport men, who had been based on Lashio, after a nightmare drive up the Burma Road, then congested with a mass of fleeing traffic and panic stricken refugees, made their way back to Hsiakwan and China. They saved the unit's more valuable equipment, including the mobile operating theatre and X ray truck, but they lost forty tons of petrol.

The two medical teams continued work in India. The Seagrave Unit spent some time at Imphal and Gauhati before being moved to Ramgarh to render medical service to the Chinese 38th Division. Soon they had 1,300 patients, filling the wards with as many as 70 in a ward and overflowing on to the verandas.

The IAU doctor in charge of the other team was asked by the ADMS for northern Assam to go across to Ledo to meet 5,000 Chinese who were on their way from the great retreat. Their condition is reported below —

"On arrival we saw several large tea drying sheds being adapted for use as temporary camps. The tea leaves are dried on shelves about three feet apart. By removing alternate shelves and strengthening the remaining ones it was possible very quickly to produce sleeping accommodation for a large number of men. Then we went to the small temporary hospital for Indian soldiers, to which some sick Chinese had been taken. I shall not easily forget the condition of the Chinese ward when we arrived.

Scores of patients were staggering in, crippled by huge, spreading ulcers. It was obvious that it was not enough to wait for them to be carried in, for many would never reach the hospital at all. So a party left for a spot along the refugee route, two days' march beyond the railhead.



Walking along the narrow jungle paths, saturated and infested with blood-sucking leeches, I personally was bitten more than a hundred times, and I was wearing heavy army boots and garters. Many of the Chinese soldiers were without shoes or boots of any sort, and as they had been marching for many weeks in a debilitated state of health the appalling condition of their legs was easy to understand.

During these days we saw many scenes of intense horror. A man dying on this path usually remains there until the rapid assaults of ants and other insects have reduced him to a skeleton. In the process he blocks the path and his presence there is exceedingly unpleasant. In some camps we found the dead and dying together, the latter too feeble to crawl away from the former. On the whole the morale of the men we met was high and they usually returned out greeting with a broad grin, and expressed embarrassingly profuse gratitude for anything that we could do to help them. The country through which we passed was the densest tropical rainforest and provided a fantastic and lovely background for some of the most lurid sights I have ever seen”.

Thus the work continued until, in the late autumn of 1942, singly or in small groups, most of the men from India flew in over the Hump to Kunming. Then the main chapter, to which Burma was but the prologue, began, work which lay in China itself.

#### CHINA

To plan for the future hard thinking and hard work were necessary, but by the time the men from India returned and forces could be marshalled and re-grouped the main pattern of work had been set, a pattern which, with many later modifications and many new ideas, persisted to the end. The two strands in the pattern were to be the distribution of medical supplies and mobile medical teams. The former work of transport has its place in a medical history of the war as much as the latter, for in a beleaguered China it was an essential service.

Throughout this time new members were arriving by air from India—British, Americans, Canadians and New Zealanders. By the beginning of 1946 the convoy numbered 139 members, of whom 18 were women.

*Transport*. The immediate task was the haulage of 160 tons of supplies from Kunming to the government godowns in Chungking, for Kunming was not an impossible goal for the Japanese and air attacks were already an established fact in its life. For this main route haulage, and for the subsidiary task of distribution from the godowns to the hospitals which needed the supplies, the unit had thirty trucks. Eleven had been lost in Burma.

The plan was that supplies brought from Kunming to Kutsing (which became the headquarters of the unit) should be taken four

hundred and fifty miles north to Luhsien on the Yangtse by weekly convoy, thence they could go by river transport to Chungking

From the summer of 1943, the main route from Kutsing to Luhsien was changed in favour of the more easterly route through Kweiyang to Chungking as the latter imposed less wear and tear on the vehicles

From Luhsien supplies were distributed to Chengtu and the hospitals and universities in the Szechwan basin, from Kunming an occasional truck went down what remained of the Burma Road to supply the medical team at Paoshan or Hsiakwan, from Kweiyang supplies went down to Liuchow and Changsha and the south east

In spite of ageing trucks and the increasing difficulties of spare parts and tyres, experience brought improved results. In December 1942, the number of kilometre tons of medical supplies carried was 21,000, in July 1943, it was 34,000, in March 1944, 50,000 and by the end of the year higher still. To keep the trucks on the road the unit had its own garages and agents at the chief centres such as Luhsien, Chungking, Chengtu and Hsiakwan, with a main garage at Kweiyang, where major repairs and the training of Chinese mechanics were carried out

In any appraisal of the transport work it should not be forgotten that the unit was the only voluntary concern in China, either Chinese or foreign, that it was hauling medical supplies to meet civilians needs, and evidence is not lacking that the work meant to a large number of hospitals and medical institutions over the most difficult years of the war the difference between effective working and no work at all

#### MOBILE MEDICAL TEAMS

The unit's first mobile team had left Kweiyang for Burma early in April 1942. Its subsequent adventures and its escape to India have already been described. Meanwhile a second team was formed in Kweiyang—two doctors and six others, of whom two were Chinese. It was too late for Burma, but the front was becoming stabilised on the Salween and the team set to work in the field hospital of the Chinese Seventy-first Army at Paoshan. The front was quiet, largely because of the summer rains and malaria, and the most pressing need was to combat a serious outbreak of cholera which involved wholesale inoculations of soldiers and civilians.

Early in August 1942, a small group, headed by the commandant of the convoy, arrived to make an investigation of the health conditions of the troops on the Salween front. They tramped long distances on foot up the gorge and then over rough country and ridges 3,000 feet high to reach the front, where they examined men in the various battalions and treated surgical cases under very primitive conditions.

At the end of July 1942, two men had been sent down from Kweiyang to investigate the need for similar work on the south east

the British Red Cross workers being needed elsewhere, was established and ran a hospital in huts four miles from the town, itself living in tents close by. It was an intermediate hospital which received the heavy flow of casualties from the front. "Each truck is met by an admission officer, one or other members of the team, who is responsible for going through the casualties looking for three kinds of wounds and complications—gas gangrene, haemorrhage and abdominal. These are dealt with immediately, and after operation are put into some of the fifty-six surgical beds for which alone the FAU is responsible. The other cases are passed into the large admission wards which are looked after in a desultory manner by Chinese orderlies. The next morning the FAU doctor and the admission officer of the previous day or night go through the cases in these admission wards, sorting out the theatre cases for the day—taking from the casualties there the broken femurs, the brain and chest cases for the theatre and for admission to FAU wards. They take as many such cases as they can, bearing in mind the bed capacity available. If there is room, some arm casualties may be taken in as well. And every day, as it becomes possible to pass some of the recovered patients farther towards the rear, unit doctors comb the admission wards for fresh patients to occupy their beds".

"The medical supply position is good; and with a daily admission of over sixty, large quantities of supplies are used. The cases, are of course, practically all surgical—ten days old on the average. They come in by ambulance in the morning and generally by stretcher and horse cart in the afternoon. Half of them are sent on to Yung Ping and Hsiakwan within twenty-four hours of arrival, that is, after they have been temporarily patched up".

All the work so far described was carried out in conjunction with the Chinese Red Cross, and dealt with a mixture of military and civilian cases. In the wilds of southern Yunnan two teams outside the Red Cross orbit were established at the request of the Yunnan provincial health authorities, to deal mainly with civilian health problems. In April 1944, No. 6 team went to Mohei, between the Red River and the Mekong, a journey of eleven days by mule. Hospitably received by the local people, they proceeded to treat the usual run of Yunnanese diseases, of which malaria was at Mohei by far the most prevalent.

In July 1944, a small group from No. 6 team crossed the Mekong to Fuhai, towards the Burma border. The work of this team, No. 7, went on until the spring of 1945, being mainly concerned with the needs of troops in the area.

And there were other projects—a brief precautionary expedition to follow up discovery of bubonic plague, the work of the fifteen men who went south to meet wounded and weary French troops fighting a rearguard action out of Indo-China into Yunnan, and many more.

No. 3 team was last seen near Tengchung; outside the breached and broken walls the team remained for five weeks while the city was being besieged. When at the end of August 1944, the city finally

fell, with hardly a Japanese left alive, the team was among the first to enter the scene of utter devastation and to plan for a new hospital in Tengchung. It ended its work with the Chinese Red Cross and opened a new phase for the unit in China, that of rehabilitation.

"Tengchung up to its occupation by the Japanese two years ago was a very wealthy city, acting as the entrepot for all goods coming into south west China from Burma and India, the entire population has a much wider horizon than in any city in China of comparable size. The coming of the Japanese drove out 75 per cent of the population, and the occupation was unusually harsh because the Japanese knew that they could not hold it indefinitely. Re-occupation by Chinese troops was a tremendous task in which every house was a strong point and casualties were high, the entire garrison fought it out until the last man was killed. The result was the complete ruin of the city, there is literally not one square foot of roofing left, walls are broken down, ditches and wells filled in, and the corpses of hundreds of men and horses lie in shallow graves which produce a terrible stench, the vultures circling over the city are gorged. There are still Chinese wounded in the valley and the nearest equipped field hospital is over the hills. The pass there is 12,500 feet high and it is a long four days trek up and down mountain passes through jungle where there is no food except what you bring with you. The FAU team already working in the valley, No. 3 team, is in the process of taking up rehabilitation work in Tengchung, we are sending them heavy equipment such as X ray and a power plant, and the hospital is already working, local authorities have commandeered the necessary buildings in the suburbs. The local guild are as able and wide visioned as we could hope to meet. The basis of the hospital is that in such an area all treatment is free, wealthy people who can afford to pay will be assessed by the local committee."

To Tengchung a new team, No. 8, drawn from other teams, was sent. Just outside the walls of the city they took over a spacious Confucian temple. The centre courtyard became the scene of great activity as carpenters and masons set to work to renovate and adapt. Quickly the hospital filled up, at first largely with victims of the mines and ammunition that lay scattered around in the town, and then with patients suffering from all the maladies of Yunnan.

Gradually the condition of the hospital improved. Some time later a visitor wrote —

"During the past four or five months the hospital has changed from a rather rough and ready condition to that of a really spick and span establishment. A new wing has been added containing a better out-patient department with three examining rooms, business office, laundry, workshop, patient bath and admission room, staff showers and servants' living quarters, and the whole hospital has been electrified. A separate building has been repaired for a nurses' residence, and the nurses training school has got properly under way. In addition to the extensions mentioned, the whole hospital has been overhauled. The usual out-patient facilities have been augmented

with separate clinics for eye, venereal diseases and maternity, and more recently three clinics a week have been started for the benefit of soldiers, who average an attendance of thirty per clinic. A public health programme has been initiated, which includes the setting up of a room in the hospital showing collections of fleas, lice, bacteria slides and blood smears, intestinal parasites, and pictorial representations of the activities of the itch-mite. In this room a class has been held for Army nurses, who have been taught the simple care of wounds, the treatment of scabies and delousing. Several expeditions to neighbouring villages have been made with a view to starting something in the nature of a local dispensary".

Tengchung was the unit's first experiment in hospital rehabilitation work in China, and when the Chinese Red Cross teams were withdrawn No. 8 team remained behind to carry on.

By the spring of 1945, the work with the Chinese Red Cross in Yunnan was virtually at an end, for the armies were moving eastwards and massing in their positions in Kweichow for a drive which it was hoped would carry them to Canton and the liberation of Hong Kong. Medical teams were reformed. As the Japanese moved back, the FAU had the same opportunity as they had in Tengchung to enter vacated hospitals in the towns and reorganise the medical services. Nantan in Kwangsi was the first of the cities to be entered, and a little later the once prosperous city of Luchow. The work there was carried out as part of the programme of the Chinese National Relief and Rehabilitation Administration—the Chinese wing of the United Nations' Relief and Rehabilitation Administration—which was now taking the field. There the unit remained for a few months before the end of the Japanese war, when most personnel in this area were withdrawn for rest and recuperation.

To end the story of the unit's medical work, there was nearest home of all—the Huei Tien Hospital in Kutsing. The unit always had an interest in it, at first providing one or two helpers but later having complete financial and administrative responsibility. Not only was this hospital a field of service near to hand, but it was also a boon to have it in Kutsing to provide for new members an introduction to medical work in China. While still living at the hostel they saw the limitations of a Chinese hospital and the way in which they could be overcome—sterilising equipment made from old petrol drums, theatre lights from truck headlamps, traction pins from pieces of bicycles or other bits of cast off metal.

From this account of the unit's medical work in China it will be seen that its primary concern was to make what contribution it could to the relief of suffering among soldiers and civilians alike. In the vast ocean of China's need anything which a hundred men and women could do in five years was but the smallest drop. But it was a gesture of goodwill in a sphere in which the sowing of understanding and goodwill was of paramount importance. Such was the state of the Chinese medical services that the unit's contribution to the whole, through its medical work and its transport of supplies, was not a

inconspicuous one. It was a service that called for strength of purpose and a refusal to yield to constant difficulties and frustrations. It called too for physical endurance. Five members gave their lives in China, four of them victims of the diseases which they were there to combat.

Outside the main programme, individual members were seconded for special duties. Two or three worked in the far north with the Chinese industrial co-operatives, one in a leper colony in the hills twenty miles south of Pichieh, a colony run by three sisters from a German mission (the warmth of whose welcome to unit drivers on this haulage route became proverbial in the convoy), others worked for shorter or longer periods to help in sudden emergencies such as the disastrous flood of 1942, in P'ing Min on the Yellow River or to carry out large scale inoculations.

At the end of the war, by which time headquarters had been moved from Kutsing to Chungking, help was given in the rehabilitation of several civilian hospitals which had been in Japanese hands. But the convoy was in a mood to be more ambitious and decided that thenceforth its most useful contribution to national reconstruction would be made by concentrating on all the essential social services of a single large area. The area chosen was in Honan.

Subsequent developments are outside the scope of this work. Suffice it to say that early in 1949, there was still an international team of young Friends and others continuing the tradition set by the FAU in China and serving Nationalists and Communists alike in the unhappy internecine conflict which had supervened.

#### INDIA

Members of the China convoy from time to time found themselves in India, in fact the convoy maintained an agency in Calcutta to facilitate the passage of personnel and of what supplies were available over the Hump into China. But the India section now to be described was distinct, the two sections were sent out at different times for different purposes, and each was separately responsible to London headquarters direct.

Reference has been made earlier to the unit's experience of air-raid relief work in Britain. When the blitz broke on London in September 1940, the unit had rallied its improvised forces hastily. But by the end of 1941, improvisation had bred a considerable body of experience and technical knowledge. This experience gained in England it was believed should be placed at the disposal of the cities of Bengal and Madras. For with Burma and Malaya in Japanese hands, Calcutta and the whole eastern seaboard of India had come into the danger zone.

Before the end of 1941, the possibility of work in India had already been discussed. When Sir Stafford Cripps flew to India in March 1942, a member of his staff took the matter up with the Viceroy, who consulted the Governor of Bengal. This was followed

up by a cable from London which offered a team of four men and two women, and ended with the words : "Sole object of members is relief of suffering and distress in accordance with Quaker principles". Two days later the reply of the Viceroy was sent through the India Office. It "gratefully accepted the offer on the conditions proposed".

Plans were carefully made. Contrary to its usual custom of finding its leaders from among its own members, the unit invited an older Friend, who knew India well and was a personal friend of Mahatma Gandhi and other Indian leaders, to join the six selected relief workers and to lead the section.

He and his deputy reached India in mid-June 1942. So far arrangements had been made almost entirely through the government, but it was essential to establish good relations with the nationalist Indians. It is an axiom of Friends relief work that the worker must not take sides in a political struggle. As a relief worker his business is to alleviate suffering ; he must work for anyone who is in need ; he must welcome co-operation from anyone who is genuinely anxious to meet the need. So they spent two days at Sevagram as the guests of Mahatma Gandhi before moving on to New Delhi, where they conferred with the Viceroy's Secretary and the Civil Defence Department, it was there that they were advised to establish their work in Bengal.

Early in July 1942, they reached Calcutta and a month later were joined by the other five ; they had already drawn in an architect member of the unit who was on his way to China but was retained in Calcutta as his knowledge of the architectural requirements of shelters would be invaluable. By the spring of 1943, seven more members had been sent out from England.

London, in the beginning, had been difficult enough. The prospect of heavy raids on Calcutta was an even less attractive one. "Bengal had had very little time to organise effective ARP services. The Japanese successes in Malaya suddenly startled the authorities into a discovery that India was threatened by attack from the east. This huge city is quite flat and is built on a swamp, the water-level being barely six feet below the surface. Large underground shelters were, therefore, out of question. Slit trenches, dug during the dry season, were mostly waterlogged in July and August, and small boys were to be seen trying to fish in them. Some oval-shaped public surface shelters were being erected, at a pace which would have allowed room for the whole population after ten years.

"Fire-watching had hardly been organised, and it seemed quite certain that if the Japanese dropped incendiaries on some of the warehouses along the Hooghly river or indeed in some of the bazaar area, fires would start which would blaze away merrily for days".

That was the problem, when the unit set to work. There was a large number of potential helpers. Among the thousands of university students there were many who seemed keen on some kind of ARP service so long as it was not labelled 'government'. In particular, there was an organisation called the Bengal Civil Protection

Committee, which had been started by the Indian National Congress but was organically distinct. It had already done some work, but found difficulty in getting equipment.

One member of the unit, therefore, concentrated on the medical section of the Bengal Civil Protection Committee which staffed over twenty first aid posts in Calcutta and had organised a medical mission which did valuable work among refugees coming through from Burma to Assam. It developed also a road service of mobile dispensaries which in the event of raids would station themselves along the evacuation routes. A second member trained students and the staffs of first aid posts, another, a trained nurse, inspected the posts from the medical point of view. Yet another developed relief and feeding centres and another the post raid information services.

A woman member concerned herself with work among women. She organised the Women's Emergency Volunteers, comprising most of the non official women's organisations in Calcutta. She enrolled women and girls who were prepared to be attached to first aid posts, relief centres and information bureaux, in order to help their fellow-women during and after raids.

One member of the China convoy was annexed. He, instead of going to China, had helped to organise and build camps for the thousands of Indian refugees from Burma who had poured into Manipur State in and around Imphal. He had spent some time in Calcutta in October 1942, but was asked by the refugee officers in Manipur to return, this he did, but after a few more months in Manipur, during which he was for a time in charge of all refugee camps in the State, he had to return to Calcutta in the spring of 1943, on health grounds.

December 1942, brought the first test. There was a short series of night raids with several hundreds of casualties. The services which had been prepared went into action and renewed efforts were made to speed things up before the January 1943, full moon, when heavier raids were expected.

But the heavier raids never came. At the time, however, no one could foresee that they would not come, and the unit maintained and developed its reinforcement of the civil defence services not only in Calcutta but in Dacca and in parts of Assam, where large air-fields and fighter strips provided attractive targets.

The work was largely precautionary and it might have appeared that after a few months the unit could be withdrawn to be used on more urgent work elsewhere. But a great natural disaster had supervened, the unit's real job in India was but beginning.

The night of 15 October 1942, was a stormy one in Calcutta, but storms in Bengal are not infrequent. It was not until a few days later that the full horror of that night became known. Rumours began to trickle through of disaster at the Hooghly's mouth, tidal waves had broken over the banks, mainly on the southern side, for a distance of seven miles. Hundreds of square miles of country were flooded to a depth of six or eight feet.



government canteens and voluntary kitchens ; in addition, one became secretary of the central relief fund.

The civil defence information office was extended to handle food and clothing problems. Two members worked in the office throughout the famine, assisting with the registration for rationing, with price control and with mass observation surveys which provided material on which the government could base its food policy.

The Indian Red Cross, in the autumn of 1943, established its own scheme for milk distribution. It began with an appeal by Lady Linlithgow for contributions in India in cash and kind, the first contribution being a gift of 200 tons of condensed milk released by the Army. The milk was intended for undernourished mothers and small infants.

The Red Cross scheme was to have two full-time officers, of whom one was a member of the unit. Rapidly the organisation grew until 100,000 a day came to be fed by the Red Cross in Bengal.

Finally, there were the unit's own canteens, in which it concentrated on children between three and twelve years of age. Thus it did not clash with the Red Cross scheme. The children were selected carefully according to need. In consultation with nutritional experts, a standard meal with a high *dal* (lentil) and vegetable content was worked out, it was varied, on different days of the week, with meat, fish, and eggs. The use, wherever possible, of premises lent by Indian voluntary organisation or children's clinics reduced costs to a minimum.

The canteens were organised by local committees which provided voluntary workers for day to day operations. In September 1943, there were five such canteens in Calcutta, and two in 24-Parganas. A move to the villages to draw destitutes away from Calcutta meant that by the spring of 1944, there were 24 unit canteens in 24-Parganas, 12 in Howrah, 24 in Dacca, and 5 in Burdwan, feeding in all 6,700 children.

The unit's funds for carrying on its work were derived from many sources in India and in the UK, voluntary contributions from an anxious public providing the major share. In January 1944, American Friends stepped in. Twenty thousand cases of milk arrived from the USA, to be followed by financial help and supplies on an ever increasing scale. In addition to milk, there came multi-vitamin tablets, atebnin for malaria, sulpha drugs for cholera and dysentery and pneumonia. The tablets were counted by the million and were distributed through over 200 agencies, mainly canteen and schools.

American personnel arrived to help administer what came to be called 'The American Drug Programme'. Others, British and American, on loan from China, helped for short periods. The distribution of these large supplies brought the unit into close touch with the health authorities and the Indian Medical Service. There was also close co-operation with the Bengal Medical Relief Committee.

It was largely American resources which made possible the extension of the work to Travancore and Malabar, in South India, where there was severe food shortage through the cutting off of rice supplies from Burma. Four hundred canteens in Travancore and over three hundred in Malabar were run on the Bengal pattern.

During 1945, the need for emergency relief was rapidly diminishing. So the unit turned its attention to the rehabilitation of famine victims. Already, in the spring of 1944, it had instituted three rehabilitation centres—one in Contai and two in 24 Parganas—at each of which about forty-five families, mainly widows and young children, worked together on weaving, spinning, mat making and other occupations to develop a co-operative enterprise. A scheme of village reconstruction, a children's hospital in Contai, a boatyard at Chittagong which in a few months turned out several hundred boats, agricultural and fishermen's co-operatives, four orphanages in Bengal, a variety of projects in Dacca—in these and other ways did the unit try as soon as possible to get away from the demoralising effects of free kitchens and direct relief.

The war ended, and with it the threat to India from the east. No one was sorry that the visitations against which it was the unit's original business to provide had not materialised, in retrospect all the hours and days and months spent on ARP might seem to have been particularly futile, but without starting preparations for that work the rapid entry into flood and famine relief would never have been possible. Not only was the section already on the spot, but much of the machinery of ARP could also be adapted to relief, notably the information services and the women's organisations.

At the end of June 1946, the FAU on its wartime basis wound up its commitments. This did not mean that the work undertaken in so many countries came to an end overnight. In fact, wherever the work had not already terminated, naturally it was carried on under other auspices, and many FAU workers stayed on. As in China, so in India, early in 1949, there was still Friends' work in progress derived from the FAU's wartime experiences.

When the FAU was revived in 1939, no one could have had any idea that its work, which seemed destined to be in Europe, would spread as far afield as the Far East. In the event the Far East became one of its major spheres of work and provided service which was among the most exacting and at the same time the most rewarding that the unit ever undertook.

## APPENDIX V

### The American Field Service<sup>1</sup>

The American Field Service was a voluntary American organisation for removing the wounded during the war. It was manned principally by civilians who could not fulfil the standards set by the Draft Boards in the USA on account of their age or medical categories. They were drawn from all walks of life—artists, lawyers, authors, businessmen, archaeologists, bank clerks, playwrights, engineers, and largely, students. They were all determined to render service and thus do a worthwhile job. There was no age limit although seventeen and sixty would appear to be the two ends of the scale.

They came as unpaid volunteers, receiving only rations (or allowance in lieu thereof), accommodation, medical and dental treatment, personnel clothing, equipment, cover for liability for third party risk while driving the vehicles, return passage to America and free railway travel. The only payment received by them in India was in the nature of an expense allowance of Rs. 65 per month with an increase of Rs. 10 after two years service when they were also entitled to thirty days home leave. Their contract with the Government of India was for eighteen months, but most of them served in India-Burma Command till the end of the war. American Field Service personnel numbering 538 were serving in India-Burma Command on 15 August 1945. They were considered 'protected personnel' and were subject to military discipline. Officers were given the status and wore the badges of rank. There were no non-commissioned officers. They themselves are said to have claimed to be 'a scruffy lot, fond of lazing around', but anything that was unusual in their appearance was largely due to the multiplicity of uniforms they had collected during their service with different units and formations, many of which had pressed on their American Field Service friends articles of distinctive regimental clothing which became highly treasured personal possessions thereafter. Whatever 'lazing around' they did was usually underneath a jeep or spent in efforts to transform their mud and bamboo canteen into a 'modern club house' where they could be seen, at no very great distance from the enemy outposts, unconcernedly painting murals advertising all the well known New York night clubs. 'Makes the place look more like home' they said. This appearance of informality and seeming casualness would quickly be dispelled when there was work to be done. At any hour of the day or night, over any kind of road, or on no road at all, they could be relied upon to provide an ambulance or a section whenever the call came.

The American Field Service was started early in World War I and served on every important battle front in France from 1915 on

<sup>1</sup> The account was originally prepared by Lieut -Colonel J Thomson, IMS (Retired) for the IAMC Journal. The information available from official records and material provided by Mr Stephen Gallati, Director General American Field Service has since been added (H/5/53/H(M) and F/2518/H(M))

and was taken over by the USA Army in November 1917. In September 1939, within a few days of the outbreak of war between the United Kingdom and Germany, American Field Service ambulances and volunteer drivers were sent overseas and served with British and French forces until the fall of France.

They then took part in the Syrian campaign, where they first became associated with the Indian Army. At the close of this campaign General Wavell, then C-in-C Middle East forces, asked that the American Field Service should be attached to his Command, and from November 1941, the American Field Service men served with Eighth Army in Egypt and North Africa. They also took part in the Italian campaigns. During these campaigns they suffered their quota of killed, wounded and captured as a result of their insistence on serving as far forward as possible. They claimed at that time to have driven over a million and a half miles and to have evacuated one hundred and fifty thousand casualties.

Extending their activities they volunteered to provide an ambulance company approximately three hundred strong for service on the Burma front, and in June 1943, their advance party arrived to make arrangements for the reception and employment of this company.

The first portion of the main body arrived late in July 1943, determined in their enthusiasm to be ready for service against the Japanese by the end of August 1943. Their motor ambulance section could not, however, be equipped and provided with the additional Indian and British personnel until the second half of October 1943, when the first section moved to Manipur Road, the second arrived there in the second half of December 1943, and the others early in 1944.

The establishment of their unit was supplemented by the addition of several British WOs, a number of Indian General Service Corps personnel and the necessary number of mess servants, water carriers and sweepers. In the early days the company consisted of a base and advanced headquarters in Poona and Imphal respectively. The motor ambulance section was commanded by a major (later promoted to lieutenant colonel) and consisted of four sections each with a lieutenant in command. Of these, three sections were composed of 4×4 Chev heavy ambulances (25 in each) and one section of jeep ambulances (24, later 36). The motor ambulance section was later reorganised to consist of two platoons each subdivided into three sections, each section having its component of heavy and jeep ambulances. They provided 50 jeep ambulance cars, 40 large motor ambulance cars, 30 load carriers and miscellaneous vehicles.

During the Assam Burma campaign the American Field Service seems to have been everywhere.<sup>2</sup> In divisional medical unit war diaries time and again a simple note appears "Evacuation by jeep

* Imphal	March 1944-June 1944	Shwebo	January 1945
Kohima	July 1944	Mandalay	March 1945
Tamu	September 1944	Meiktila	March 1945
Tiddim	October 1944	Pegu	May 1945
Kalewa	December, 1944	Prome	May 1945
	Rangoon	May 1945	

ambulance (American Field Service) ". No detailed account of their activities can be given here. Reference must, however, be made to their valuable work, which received the highest praise from the medical authorities in the Kohima-Imphal battles, in the fighting march of the 17th Division from Tiddim, in the advance of the East Africans and XXXIII Corps down the Kabaw Valley. One high ranking medical officer paid tribute to them in the following words: "The only fault I can find with them is that they wish to go, and do go, too far forward ". Three hundred and seventy men received the Burma Star.

It may be recorded that the American Field Service, late in 1944, made the generous offer of procuring pilots and planes for evacuation of casualties. However, due to organisational difficulties and the shortage of maintenance personnel, it was considered impracticable to fit in an air echelon of the Service into the Fourteenth Army set up.

Many of their names are well known to Indian Army officers who served in the Middle East or Burma. In India their commanding officer was Major, later Lieut.-Colonel, Chauncey B. Ives, a New Deal lawyer, who saw service during this war in Finland, Norway, Syria, Egypt, Libya and, finally, on the India-Burma front. Mr. Laurance Marsh, lieutenant in the United States Navy, was appointed to succeed Major Ives in April 1944, and stayed in command until the termination of their work. He was promoted to lieut.-colonel when the enlarged contingent arrived from Italy.

Captain John Pemberton led them in the early days in Assam and had with him Captain John Patrick, a Hollywood script writer and playwright, who also edited their light hearted service magazine, the *American Indian*.

Lieutenant Hug Parker made a name for himself when he led a party of seven American Field Service personnel who escaped from the Japanese custody through the jungle carrying their wounded when the 17th Division was cut off on the Tiddim Road. The men of the 17th Division had much for which to thank the American Field Service men who came through with the Division at the battle of mile-stone 109.

Then there is the tale of Karl Rupert, forty-seven years of age, who was seen carrying wounded from his ambulance to the safety of a slit trench while under mortar fire. This is typical of the service given by all these volunteers.

Another of their number, Lawrence Saunders, when over fifty, was captured in 1942, while carrying wounded Newzealanders and was for fourteen months a POW in Italy. He was repatriated to the Middle East only to come out to India and to have both legs broken on the Tiddim Road. Even this was not enough to damp his enthusiasm.

The finest episode in American Field Service records is of Neil Gilliam whose exploits during the defence of Imphal won for him the

George Medal The Supreme Allied Commander South East Asia at the time of the decoration said that if Gilliam had been a British subject he would have been awarded the Victoria Cross

The last to leave India was Major, later Lieut-Colonel, W W Phillips who, having served in Syria, Middle East and Italy, became their historian Phillips is a novelist and served in the Spanish Civil War

The spirit of these men and of their Service is summed up in the tale of a near-mutiny by four volunteers when they were detailed to return to their base as being unfit to stand up to the amount of marching required in the next phase of the campaign The loudest and most indignant protests came from two with a wooden leg piece

One might imagine from their habit of joining in any war that they could find, either as private individuals or as members of the American Field Service, that many of them would wear an impressive collection of assorted medal ribbons Some of them, indeed, have been specially decorated in the field on a number of occasions and they are all entitled to wear the campaign service ribbons of the various national forces with whom they have served Wearing one's medal ribbons is, however, one of those things that just are not done in the American Field Service, and so the oldest and most gallant veteran is no more dazzling to the eye than the newest recruit

Before VJ Day, arrangements were made for the employment of a company of 350 American Field Service personnel who had been serving in the Middle East These men were, however, not moved to India, and the company serving with ALFSEA returned to India for repatriation to the USA in October 1945

These volunteers retained their admiration for Indian troops and continued friendships made in the war days They have corresponded, some have visited India and many are happy to welcome Indian students at their American Field Service Club house

The spirit and work of these gallant men have been very well summed up by DDMS Fourteenth Army in the following words —

"It was the constant plea of the unit that it should be used with the forward troops, and this plea was gratified on every possible occasion The devotion to duty and gallantry of this band of men were an inspiration to all who came in contact with them, and was only equalled by the tenderness and care they displayed towards the sick and wounded placed in their charge"

Casualties suffered by the American Field Service were as follows —

	<i>All Theatres</i>	<i>India Burma Command</i>
Killed	36	9
Wounded	70	4
POW	13	—

100 per cent suffered from dysentery and/or malaria

The following decorations were received by the Service :—

	<i>All Theatres</i>	<i>India-Burma Command</i>
George Medal . . . . .	1	1
CBE . . . . .	1	—
OBE . . . . .	7	2
BEM . . . . .	25	2
Legion of Honor . . . . .	1	—
Médaille Militaire .. . . .	3	—
Croix de Guerre .. . . .	54	—
Bronze Star (US) .. . . .	1	—
Bronze Cross of Merit with Swords (Polish) .. . . .	8	—
Mentioned in despatches ...	58	9

## APPENDIX VI

### The History of Seagrave Hospital Unit

The Seagrave Hospital Unit<sup>1</sup> had its origins in the special conditions of medical work prevailing in the Shan States of Burma during the twenty years before the Japanese invasion of Burma in 1942. The Shan States area is the largest administrative division in the whole of Burma, with a relatively small population scattered widely over the mountains and valleys of the Irrawaddy—Salween Divide. Throughout this area it had always been found extremely difficult to secure doctors and nurses except in the four or five largest towns. The only hospital available for the hundreds of thousands of people on both sides of the border was the American Baptist Mission hospital at Namkham in the populous valley of North Hsenwi State. In 1922, Dr Gordon S. Seagrave was sent to this hospital by the American Baptist Mission. Kachins of the area were especially anxious to avail themselves of surgical attention when ill and the hospital promptly developed a wide surgical practice. The local rulers were anxious to have hospitals opened in their own areas as soon as possible. But it was quite apparent that it would be a great many years before sufficient doctors or nurses could be secured to fill the needs of all the people. The training of doctors was, of course, out of the question and it only remained, therefore, to train as many nurses as possible so that nursing care, at least, would be available in as many places as possible. The American Baptist Mission Hospital, therefore, in 1923, began the training of nurse-midwives, making a special effort to teach them simple compounding and the recognition and care of the most common diseases of the area. Because of the amount of surgery done in the hospital, nurses on graduation made very effective surgical assistants during surgical operations. On graduation they were placed in charge of small branch dispensary-hospitals of the nursing home type from which the most severe cases were sent to Namkham for treatment. Student nurses were placed on duty with these graduates, serving one or two months in rotation, thus gaining a sense of responsibility in their work. During the few years before 1942 a number of doctors had been given short courses of training in surgery. At the end of 1941 this hospital had the only training school for nurses and midwives in the Shan, Kachin and Karen States of Burma.

With the building of the Burma Road and the opening of a factory for the manufacture of aircraft in China only four or five air miles from Namkham, the type of work done by the staff of the American Baptist Mission Hospital at Namkham assumed a different aspect, which had a strong bearing on the character of the Seagrave Hospital Unit. The first 300 miles of the Burma Road, north of the railhead at Lashio, covered an extremely malarious country, and hundreds of labourers working on this road died of malignant malaria.

<sup>1</sup> H/5/60/H(M)



as well as other diseases. For a time it seemed that the work on the road would have to be discontinued for lack of labourers. The aircraft manufacturing company across the valley employed thousands of Chinese of all classes whose medical cares it was found, the Chinese staff could not handle. The staff of the American Baptist Mission Hospital at Namkham was asked by the Americans to assist in the medical work for the Chinese at the factory and, at the same time, the British officials in Burma demanded assistance in taking care of workmen who were building the Burma Road. This resulted not only in the Burmese doctors and nurses of the hospital learning the Chinese language but also in a great widening of their experience and capability in assuming responsibility under difficult circumstances. When, in 1940, Japanese bombed the aircraft factory, the training was completed for doctors and nurses learned to operate on and nurse war casualties.

This, then, was the position of Dr. Seagrave's Hospital when, in December 1941, the Japanese began the attack through Siam and Malaya. It seemed to the staff of the hospital that when Burma was attacked by the Japanese Army the Indian and Burmese medical services personnel would be transferred to the Army in Burma, leaving, perhaps, large areas where civilians would not have medical and surgical attention in the event of bombing. It was decided, therefore, that Dr. Gordon S. Seagrave and Mr. William Cummings, an agricultural missionary in the same area, should proceed to Rangoon and volunteer the services of the staff of the hospital and nurses training school to the Government of Burma or to the commanding general of the Army in Burma as a mobile hospital unit primarily designed to do medical and surgical work for the civilian population.

The offer of this unit was made to the commanding general of the Army in Burma at Rangoon on 27 December 1941, just after the second bombing of Rangoon by the Japanese. The commanding general accepted the offer of a mobile surgical unit and American lend-lease officers made available six large trucks for the transport of the unit when ordered to move by the authorities. Equipment for the mobile surgical unit was also furnished from American lend-lease.

This first move into the southern Shan States was made only by half the total personnel of the hospital; the remainder stayed on at Namkham to continue the work for civilians and be ready as reserves in case of an emergency.

The mobile surgical unit was ordered to set up its headquarters at Lolemy, in the southern Shan States, since that town was the junction for all the main roads of that area. The status of the unit at that time was entirely civilian but an honorary lieutenant-colonelcy was given to the commanding officer—Dr. Seagrave—to facilitate the work of the unit with the Chinese Army. The unit was under the control of British liaison officers assigned to the Chinese Army. The total strength of the unit at the time consisted of Dr. Seagrave, Dr. Ba Saw Dwe, Dr. George N. Tu, Mr. Cummings (as administrative

officer), six American and Burmese missionaries who had volunteered to act as drivers, thirty-four Burmese nurses, and twelve Burmese men who had volunteered to do any heavy work connected with the service of the unit. This was a very small unit to be responsible for the care of an entire Chinese Army spread out over a front of some four hundred miles from Indo-China to Burma proper. Orders had been given by the British Army authorities that, besides rations and POL, the unit was to serve entirely without pay. Two English missionary doctors, Dr T R V Gurney and Dr Barr-Johnston, volunteered immediately to serve with the unit. Dr Barr-Johnston was assigned to the area east of the Salween river where he was joined by a volunteer Chinese doctor—Dr E Y Tang. Dr Gurney took the central portion of the southern Shan States.

Since Loilem was from one hundred to two hundred miles from the front it was quite apparent that one hospital in Loilem would not be able to serve casualties of the Chinese Sixth Army in any effective way. The only possibility of real service would be to open small clearing stations much closer to the front and leave them in charge of staff nurses assisted by student nurses. Six of these clearing stations were opened, the most forward position being commanded by Lazum Htu Lum, the chief nurse of the unit. But clearing stations under nurses could not possibly prove effective without constant supervision of the doctors serving at the front. American lend-lease, therefore, furnished six jeeps to make this supervision possible.

Until the middle of March 1942, there were no action casualties among the Chinese. What casualties there were occurred as a result of accidents to lorries transporting troops from China to the front. Hundreds of Chinese, however, had to be hospitalised because of illness since few of their troops were fit on entry into Burma. At that time the unit's only casualty of the war occurred when chief nurse Lazum Htu Lum was killed in a jeep accident. Her place was ably taken by nurse Ma Koi.

About the middle of March 1942, Lieut General Joseph W Stilwell assumed command of the Chinese Army as chief of staff for Generalissimo Chiang Kai Shek. When Dr Seagrave found that an American general was in command of the forces to which his unit had been assigned, request was made for transfer from the British liaison group to the American Army. This transfer was completed at the time that the Chinese Fifth Army took over the defence of the central front in Burma, immediately north of Toungoo. General Stilwell at once gave orders that Dr Seagrave's unit should be divided into two groups, one to remain in the Shan States serving the Chinese Sixth Army, which was still not in action, the other to proceed immediately to the neighbourhood of Pynmana, in central Burma, to care for the hundreds of casualties being sent back from the front lines of the Chinese Fifth Army. Simultaneously with this order General Stilwell sent forward a Friends' Ambulance Unit group to serve with Dr Seagrave's unit. Chinese stretcher bearers and first aid men transported casualties from the front line a short distance

to where the Friends' Ambulance Unit, under fire, picked them up in their trucks and transported them back along the main Rangoon-Mandalay Road to Dr. Seagrave's unit.

At the beginning of this assignment four of the unit doctors remained with the Sixth Army in the Shan States and Dr. Seagrave carried on alone at the Fifth Army front until two Americans—Captain John H. Grindlay, M. C. and Captain D. M. O'Hara, D. C. were ordered by General Stilwell to join the unit. Dr. Seagrave was given a commission as a Major in the Medical Corps of the United States Army on 20 April 1942, but all other personnel in the unit were kept on a civilian basis. Funds to pay the personnel small salaries were furnished by the Chinese Red Cross.

As the Chinese Fifth Army fell back, the unit was ordered farther to the rear until it was half-way between Meiktila and Mandalay when the Japanese, on a flank drive north-east into the Karen State, broke through the weak Chinese Sixth Army and sealed the fate of the 1942 campaign in Burma. Personnel of the unit who had been serving in the Shan States and at Namkham were given their choice of being flown to India or returning to their homes. Fourteen nurses, two English doctors, one Burman doctor, the administrative officer, Mr. Cummings, and the American missionary truck drivers were flown from the aircraft factory site near Namkham to Dinjan in Assam. Major Seagrave, nineteen nurses and one male nurse, one Burman driver and several others were ordered to march out on foot with General Stilwell's party. For their nursing care to American Army officers and men on this march out of Burma, all the nurses were subsequently decorated by General Stilwell.

On arrival at Imphal, Assam, the future status of the Seagrave Hospital Unit, as it was then named by General Stilwell, was discussed. It was decided by the General that Burman personnel should be kept on a civilian basis and American personnel should be military, with both the military and civilian branches under the command of Major, later Lieut.-Colonel Seagrave. Until such time as General Stilwell's plans for a Chinese Army training centre in India could be carried out, the unit was ordered to assist military and civilian authorities at Gauhati, Assam, in caring for Indian and British evacuees, both military and civilian, from Burma. A hospital of some two hundred beds was filled continuously until, on 7 July 1942, the unit was sent to Ramgarh, Bihar, with orders to take over the former POW hospital and serve Chinese troops until a total of four hundred and fifty beds was being cared for, at which time a second American hospital unit would be assigned the care of the remaining half of the hospital. The Chinese who marched out of Burma, however, were in so much worse shape than had been anticipated that the Seagrave unit, augmented by medical officers and other ranks, was actually caring for more than 1,250 beds before a second American hospital unit arrived. This total number of beds was not filled entirely by Chinese troops. About 150 were reserved for Indian soldiers and

personnel who were assisting the American forces at Ramgarh, and about 75 beds were reserved for Americans

Colonel Seagrave remained in command of both the American hospital units until March 1943, when he and half the Seagrave unit were transferred to the Naga Hills in support of the 38th Chinese Division, which was screening the Indian, American and Chinese engineers who were building the road into Burma from Ledo, Assam. This road was later called the Stilwell Road. The second half of the Seagrave unit was transferred to the Naga Hills at the end of May 1943. Apart from minor patrol actions, the service in the Naga Hills until October 1943, was almost purely medical in nature. The unit served in three widely separated posts in the Naga Hills, at Tagap Ga, at Hkalak Ga and at Htpachet Hi, all of these posts some three or four days' march forward of the roadhead. Quarters for personnel and wards were built by Garos, Nagas and Nepalis as well as by the unit's Burman personnel from jungle bamboo and grass thatch. Rations and medical supplies were dropped by air.

Towards the end of October 1943, the Chinese were ordered forward into the Hukawng Valley and soon closed with the Japanese. At the beginning of this campaign the Seagrave unit served both as a mobile surgical hospital with the front lines and also as a clearing company. But a number of American medical units soon reached the front and took over the front line surgery except for an occasional flank move where the acquaintance of the Burman personnel of the Seagrave unit with the terrain and the local languages made them especially valuable. Otherwise the unit served as a clearing company evacuating the casualties by stretcher and air to the larger American general and evacuation hospitals in the Ledo Area. Shortly after the commencement of the campaign in the Hukawng Valley a small number of nurses from the Seagrave unit were transferred to the rear to assist in opening a hospital for the American and Kachin Rangers of Detachment 101 of the Office of Strategic Services. Simultaneously, various American hospital units and hospital personnel were assigned to work with the Seagrave unit for varying periods of time. The personnel of the Seagrave unit, having worked in all sorts of jungle conditions for many years, were assigned to train them in the technique of surgery under difficult circumstances in the jungle and without proper apparatus, since the American equipment of those units was too heavy for jungle transportation.

This remained the situation until the air field at Myitkyina was captured by the American troops under General Merrill. As the Chinese troops were flown in to assist in holding the air-field and capturing the town of Myitkyina that part of the Seagrave unit which had not marched to Myitkyina with General Merrill's forces was flown in to Myitkyina from the air-field at Mainghwan in the centre of the Hukawng Valley. It should be pointed out that both in this campaign, which ended at Lashio in March 1945, and in the first campaign in 1942, the Burman nurses of the Seagrave unit were the only women permitted to serve in the front lines anywhere on the

American-Chinese front. Their personal bravery and courage in assisting in the surgical treatment of casualties under fire, whether that of rifle, mortar or heavy gun, was noted by everybody and never more so than in the battle of Myitkyina where no cover was available to conceal the unit from the Japanese. The unit was located less than three miles from the Japanese line.

Because of its proximity to the front lines hundreds of casualties were brought back within half an hour or an hour of having been wounded. This was of tremendous importance in view of the very large number of casualties suffered by the Chinese troops, several regiments of whom had never seen action before being sent to the front lines. Hundreds of lives were, therefore, saved which would definitely have been lost had the unit been assigned a place of greater safety. Evacuation was direct by air from the unit's hospital to the evacuation and general hospitals in the Ledo area. Air supply reached a peak of efficiency. On one occasion, during a fierce spell of fighting, a request for plasma and drugs was placed with the pilot of one of the Dakotas and the supplies were delivered in four hours.

After the fall of Myitkyina there was a period of two months of inactivity during which the Chinese Army was regrouping and training replacements. The day after the fall of the town the unit was, therefore, ordered to open a five hundred bed tent hospital on the banks of the Irrawaddy where wounded and ill Chinese troops could recuperate in preparation for the continuance of the campaign. During this time casualties were also sent to the unit by rail from the Mogaung-Kamaing area. No patients were evacuated to Assam excepting those who were completely unfit to return to duty.

On 15 October 1945, the newly constituted Chinese First Army began the drive south on Bhamo. The Seagrave unit, augmented by the addition of eight American medical officers and one hundred enlisted men, was ordered forward in sections with the Chinese regiments, the main section of the unit again acting as a clearing station until the siege of Bhamo when it began to take on the character of a mobile evacuation hospital. It had been discovered that hundreds of Chinese casualties, after recovery in the large base hospitals in Assam, disappeared when ordered to rejoin their regiments and it was decided by the combat surgeon that all casualties which could possibly be returned to the front lines should be treated until fit in the forward area. This assignment was given to the Seagrave unit since its very unorthodoxy increased its adaptability. In accordance with this order, from the fall of Bhamo until the end of the war, all casualties which were not hopeless were kept with the unit and were moved forward by truck along the Bhamo-Lashio Road whenever the unit was ordered forward. Since the unit's main section was always located within a few hundred yards of the divisional command post, this new type of hospital proved very effective in dealing with Chinese troops since they never left the area of command. As the campaign ended beyond Lashio, the unit, then located at Lashio, was

ordered to return to its pre-war parent hospital at Namkham and rebuild the bombed out hospital buildings

The Seagrave Hospital Unit, therefore, was the only hospital unit to serve Chinese and American forces from the beginning of the war in Burma until the latter part of 1942. In the words of Lieut - General Sun Li jen, commanding general of the Chinese First Army, hundreds of his men had been wounded seven or eight times each and yet had, after operative care by the Seagrave Hospital Unit, still been able to return to combat duty at the front

## APPENDIX VII

### The Indian Tea Association Eastern Frontier Projects<sup>1</sup>

The account of the work done by the medical organisation of the Indian Tea Association (ITA) covers the period from February 1942 to October 1945. Early in 1942, when the Japanese forces were rapidly invading Burma and Malaya, it became obvious that the eastern frontier of India was to become of vital importance in the defence of India. The ITA took up the task of organising a supply of labour to assist the military forces in building roads, aerodromes and camps and in evacuating refugees.

The medical department of ITA had to build hospitals and organise treatment, undertake malarial control and provide suitable drinking water for a peak number of 120,000 labourers. The work was arduous, conditions unfamiliar and the diet, of necessity, frequently not well balanced. Whenever possible, therefore, labour was only engaged in work for three months or so at a time and then replaced so that, in all, a very large number saw service on the projects and were controlled by some 358 liaison officers. The larger projects were supervised by 17 whole-time medical officers at various times and the smaller ones by the part-time local doctors. They were assisted in the 259 camps by a subordinate staff of 259 assistant medical officers, 270 compounders, 270 malarial inspectors, 1,040 dressers and junior staff such as sweepers, watchmen, cooks and water carriers in the hospitals of the various undertakings. Camp sweepers were recruited on a scale of 1 per cent. of the total labour force and were under the supervision of the malarial inspectors. There were three major road projects—Ledo, Manipur and Aijal—with a whole-time senior medical staff, twenty-five aerodromes, ten shingle and quarry projects and six other miscellaneous projects under a part-time European medical supervision.

The difficult climatic conditions and terrain, over which much of the work was done, made heavy casualties, inevitable. There were in all 6,884 deaths among the labour force admitted for compensation, a rate of 2.23 per cent. The average daily sick figure for all projects was 3 per cent.

The provision of pure drinking water supply was a first consideration and the scientific department of the ITA was asked for officers and staff to provide such a supply to the labour employed. The whole of this work was carried out by three members of the Tocklai staff assisted by seven planters and four men who had been evacuated from Burma. Tube well supplies, in which contamination or pollution does not normally occur, were only occasionally installed, as

<sup>1</sup>L/3/12/H(M)

in most of the camps the nature of the soil or the terrain itself prevented their use. The department had for some time been experimenting successfully with the sterilisation of polluted water by means of silver electrolysis, and, therefore, it was decided that this method should be used in preference to the accepted method of chlorination, which, as is well known, imparts an unpleasant taste and consequently almost certainly could be expected to drive the labourer to untreated and, therefore, probably polluted water supplies.

When sterilisation of water had to be done in tins, each tin was treated by immersing a pair of silver electrodes (made of beaten out silver rupees), across which a  $4\frac{1}{2}$  volt current was passed from a torch battery, for thirty seconds with vigorous stirring. After standing for half an hour, tests showed that even if the water was cloudy sterilisation was effected.

In the Lekhapani camp, destined to hold over 15,000 labourers, 50,000 gallons daily were pumped by a steam-driven reciprocating pump through three inch asbestos cement and two inch galvanised iron pipes to steel tanks situated in various parts of this vast camp. Sterilisation was effected by inserting two large silver electrodes in the main pipe on the delivery side of the pump, and passing a 12 volt current from two car batteries. Regular tests of the water from the tanks showed that the treatment was effective. The water from the river was generally clear and only occasionally slightly cloudy.

In the case of the Manipur Road camp, five miles from Dimapur (for 5,000 labourers), concrete tanks were constructed near the river and water was pumped by hand with military type lift and force pumps. Since the water in this river was very often extremely muddy, arrangements were made to clarify the water in a settling tank, using the commercial brand of sulphate of alumina (alumino ferric), before passing it through a specially constructed concrete box containing the silver electrodes fed with a 12-volt current. It was found that 10 milliamps flowing across silver plates for one hour was sufficient to release enough silver to sterilise 1,000 gallons of clear water after half an hour's standing subsequent to passing the current. The amount of silver required was minute—1 part of silver in 100 million parts of water was effective if the water was clear. Cloudy water required up to ten times this quantity depending on the cloudiness.

In August 1942, after the evacuation of the refugees from Burma through the Hukawng Valley and Chaukan Pass routes had been completed, the ITA organisation on the Ledo Road project closed down temporarily, but the water supplies which had been installed in and around the base camp at Lekhapani were handed over to and used by the military units which remained there.

It should be emphasised that in no case did any medical officer ever trace water-borne disease to water which had been obtained from a sterilised source, though it must be admitted that at times sanitary conditions left a lot to be desired.



## LEDO PROJECT NO. I

This project was started early in March 1942, primarily to build two roads into Burma for military purposes over the Pansau and Chaukan passes respectively. In the early days the predominant factor was speed, as this project was of first priority. Labour arrived at the rate of 1,600 per day and as the physique of some of the drafts, in particular those from the Indian States, was very poor the medical staff was overtaxed right from the beginning. However, a large base hospital with accommodation for 250 beds and, in an emergency, 300 beds, was completed by the beginning of April 1942, for a camp which by that time accommodated 10,000 labourers.

Batteries of *pucca* bore-hole latrines were placed in the jungle at the western edge of the hospital, and another fifty yards further into the jungle were the isolation wards.

Another fine hospital of 250 beds was built at Miao on the Chaukan Pass route. There were, in addition, twenty-four other small hospitals at intervals along both the roads, all staffed and stocked by the ITA.

The equipment of the base and Miao hospitals was suitable for all possible demands and included pressure sterilisers and arrangements for cold storage. Two small subsidiary hospitals, one for the Assam Rifles and Professional Carrier Corps porters and the other for the sick evacuees, were also under the ITA administration.

The question of sanitation was never satisfactorily solved at any of the camps. At Lekhapani bore-hole latrines were tried, but without success in most cases, for the reason that, at six feet or less, tightly packed shingle was found; in any case, with a population of some 14,000, this type of latrine would have proved an impossibility owing to the large amount of labour required for its construction. Slit trenches were therefore built in the jungle outside the perimeter of the camp, but, with ignorant and undisciplined labour to deal with, great difficulty was experienced in persuading them to go as far as that and a large number of sweepers were required for carrying out sanitary duties.

By the beginning of May 1942, camps at suitable intervals had been established as far as Miao and Nampong, at the foot of the Pangsau Pass, and 25,000 labourers were at work.

On 12 May 1942, all road work stopped and arrangements started to cope with the evacuation of 5,000 to 10,000 refugees from Burma over the Pangsau Pass and down what was then known as the Jeep Road. Fortunately, the resources of the organisation were sufficient to be able to feed and treat the 22,000 refugees who eventually found their way to Margherita. Another six camps with medical staff were quickly pushed out as far as Namlip, eighty miles from Lekhapani, over very difficult country and at the worst time of the year.

All the hospitals up to the Burma border were specially stocked with drugs and special articles such as milk, marmite, etc. In addition,

road-side stalls were erected with a compounder in charge of each to provide minor first aid and light snacks

At Nampong, the first hospital in Assam on the evacuation route, all evacuees received a cholera injection and were seen by a medical officer. The hospitals were kept for refugees who were physically too ill to proceed further and had to be evacuated by stretcher.

The refugees, it is true, brought back exaggerated stories of the number of deaths on the road at this stage. No estimate can ever be correct, but it appears probable that the total number of deaths between Nampong and Namlip are not likely to have exceeded 100 up to 12 June 1942. It was later on, when the camps had been withdrawn and refugees despite the orders of the political officer insisted on leaving Shimbwiyang where they were being fed by air, that the deaths mounted terribly and the steep grass covered slope leading up from the river to Ngilang Ga became littered with pitiful little shelters, which had been built by those who could go no further and in which they lay down to die.

There were no special epidemics or diseases, the majority of the deaths being primarily due to exhaustion. It may be taken as definite that there were not more than five or six cases of cholera between Namlip and Margherita. There was only one case of small-pox. Nearly everyone suffered from a form of colitis which seldom turned to dysentery in the early stages, but later dysentery increased, mostly in the bacillary form. Choleraic diarrhoea was found occasionally. Malaria was increasing in July 1942, but there had been unusually few cases for that time of the year.

The condition of British troops was much below that of other evacuees and the condition of Indian troops was above that of civilian evacuees. Gurkhas were mostly in excellent condition and the majority were able to carry their equipment. The daily sick rate was 3.5 per cent. There were 152 deaths in all, which shows a rate of 2.58 per cent over the whole period of the project.

The disease which undoubtedly caused most anxiety was meningitis, of which there were 183 cases and 55 deaths, giving a rate of 30.05 per cent. This disease was exacerbated by the crowded conditions particularly in the base. The incidence of malaria in such a large number of unsalted labour was high, 1,986 cases were hospitalised and there were 88 deaths with a rate of 4.43 per cent. After meningitis the diseases causing greatest concern as regards treatment were choleraic diarrhoea and dysentery—a large number of the latter being of a fulminating bacillary type. There were 49 deaths due to the former and 51 deaths due to the latter out of 575 and 1,450 cases respectively, representing rates of 8.52 per cent and 3.51 per cent. Latterly, the incidence of 'Naga sore' was high and stubbornly

<sup>2</sup> Synonyms Tropical Ulcer Jungle Sore—The outstanding features of the lesions were their chronicity and the fact that they showed little response to treatment. These lesions were mainly associated with *Leishmania tropica*. Diphtheroid organisms have been recovered from some smears. A true secondary diphtheretic infection was also found in some cases.

resisted all forms of treatment. There were 33 deaths out of 260 cases of pneumonia—a rate of 12·79 per cent. The Indian medical staff worked magnificently throughout the four months.

This then was the Ledo Project No. 1—seven weeks' work done in time to enable 22,000 refugees to be fed and shepherded to safety during two months of the monsoon and through some of the most difficult terrains in the world.

#### LEDO PROJECT NO. 2

This project does not come next in chronological order but is described here, nevertheless, as it was an outstanding example of what could be done when there was time for preparation. It was a compact, highly organised project rising to a peak of 6,000 labourers, an average daily population of 3,762, and lasting five months from 20 January to 20 June 1943.

Particular pains were taken with the personnel and staff as it was the first major project undertaken and was completely under American control. Each camp consisted of 500 labourers and the camps stretched from Baragolai some forty-one miles to Nampong. The base camp hospital was very conveniently placed at Lekhapani and many of the buildings of the first project hospital were used. Conditions were very different from 1942, as there was a motor road to Nampong and two ambulances and a truck were put at the disposal of the medical department. Sufficient warning was given for the PMO from Manipur and the chief liaison officer to meet the Americans and see conditions on the spot. A full range of drugs was brought up by road from Manipur and there were always two medical officers on duty. The subordinate medical staff consisted of 12 assistant medical officers, 12 compounders and 12 malaria inspectors. The inspectors each had charge of 6 sweepers who sprayed all the quarters twice daily with pyrethrum in addition to their sanitary duties.

The labour was well disciplined and despite the extremely unfavourable conditions which existed during the greater part of the project the health figures were excellent. The weekly works report asked for by the American medical authorities also proved very useful to the ITA medical department in compiling accurate statistics.

A summary of the incidence, rates and deaths due to all diseases and to injury is given below.—

<i>Diseases</i>	<i>Total</i>	<i>Rate</i>	<i>Deaths</i>	<i>Death rate per cent.</i>
Malaria	436	11 58	6	1 38
Helminthiasis .	2	0 05	0	—
Dysentery amoebic ...	13	0 34	1	7 69
Dysentery bacillary	53	1 40	3	5 66
Diarrhoea .	93	2 47	1	1 07
Pneumonia	59	1 59	4	6 78
Influenza .	107	2 84	1	0 93
Other pulmonary diseases .	1,146	30 46	3	0·26

<i>Diseases</i>	<i>Total</i>	<i>Rate</i>	<i>Deaths</i>	<i>Death rate per cent</i>
Nag a sore	91	2 17	0	—
Eye diseases	10	0 26	0	—
Ulcer and skin diseases	6½	1 70	0	—
Small pox	2	0 50	0	—
Chicken pox	1	0 20	0	—
Meningitis	8½	2 23	12	10 19
Surgical—major	8	0 21	5	62 50
Surgical—minor	209	3 50	0	—
Measles	1	0 02	0	—
Other diseases	710	19 67	2	0 27
Total	3,119	83 19	18	1 71

The average daily sick rate worked out at 2.17 per cent. Mepacrine prophylaxis was not administered and mosquito nets were not available except in hospitals. The ninety-one cases of 'Nag a sores' generally responded to 'mug sulph' compresses till the slough could be removed, they were then dusted with sulphapyridine powder and, in suitable cases, stripped with elastoplast.

#### LLDO PROJECT NO. 3

The short term No. 2 Project was successful and the American authorities were so impressed with the disciplined ITA contingents that they pressed for a long term project to be run on similar lines. The third project was, therefore, started in September 1913 with Darjeeling labour and throughout its eighteen months duration all the usual three monthly replacements were recruited from Darjeeling gardens. The peak number employed was 10,889 and the average population was 4,820 stationed in thirty-two camps stretching from Boragolui, in Mirgherit, 118 miles to Shimbwiyang. A noteworthy feature of this project was that it started with only six camps in Assam and the rest all over the Burmese border. Latterly all the camps were in Burma. The project was well organised and all the labour was supplied with mosquito nets and thick woollen blankets. For the first time in the projects all the labourers, clothes and blankets were disinfested with steam because of the typhus prevalent in the Burmese jungles. This treatment was very successful as the incidence of typhus was limited to six minor attacks with no fatalities. The medical department had the whole time use of two ambulances, two jeeps and one truck. Health was good and the sick rate varied from only 1 to 3 per cent. The hospitals were all well equipped and after the malaria epidemic the whole labour force received mepacrine prophylactically daily.

#### MANIPUR ROAD PROJECT NO. 1

Conditions in Manipur Road Project No. 1 were difficult throughout the project, vehicles and food were in short supply, and labour and military reinforcements were trying to move 150 miles up

a single track hill road against the tide of the Burma Army and huge numbers of refugees crossing the frontier.

There were some thirty camps stretching 183 miles from the Golaghat Road to Lokchao and supervised by five medical officers. In spite of the improvisations, the speed with which all the work had to be undertaken, and the general panic and disorganisation caused by two Japanese air raids on Imphal, the death roll did not exceed 235 with an approximate rate of 1·5 per cent. for the five months of the project.

A malaria inspector with a squad of four men sprayed every tent and building daily between 05.00 and 08.00 hours with a pyroicide-20 mixture. The incidence of malaria was outstandingly low.

There were 17 cases of cholera with 10 deaths.

'Naga sores' were introduced by Tea Districts Labour Association labour. They caused a very definite loss of efficiency in several camps, even up to 5 and 10 per cent. in spite of the usual preventive measures having been adopted. It was coincidental with a plague of 'eye-flies'<sup>3</sup> in those camps in which it occurred. Later it was very definitely shown that Naga sore is a disease of lower altitudes as no cases ever developed in labour consistently kept working at an altitude of 3,000 feet and above.

Shortly before the start of Manipur Project No. 2 it was decided to move the hospital and all the camp labour of 1,200 up to milestone 42 below Kohima and at an altitude of some 4,000 feet, where the large breach in the road had taken place. By the end of July 1942, the new hospital was functioning. The hospital was improved as and when possible, and by the cold weather Project No. 2 was completely huttred and possessed a very fine semi-pucca operating theatre.

The nature of the work at the slip, as the breach in the road was called, was very arduous, the work going on in shifts day and night in the early stages and mostly in pouring rain. Indeed "rain and mud and toil and sweat" was the sequence for days on end. That the road was opened for traffic only thirteen minutes later than the declared time was a miracle to the uninitiated and a triumph for all concerned—a triumph in which the ITA played a very great part.

Owing to the inclemency of the weather and the long hours of work and exposure there were many cases of influenza and diseases of the respiratory system in the early days. Lowered resistance caused by these infections brought out many cases of latent malaria that had no doubt been contracted previously down at Dimapur. On the whole the health of the labour force was good and the average daily sickness was only 1·2 per cent.

#### MANIPUR ROAD PROJECT NO. 2

This project was begun in August 1942, and the military authorities, for strategic purposes emphasised the importance of the maximum

<sup>3</sup> Oscinidae (Chloropidae)

available labour being employed continuously in order to double the width and tarmacadamise the existing single track hill road to Imphal, 133 miles from Dimapur before the end of the cold weather. This demanded a very highly organised medical organisation and mobilisation of every kind of equipment available. Work started in August 1942, with 5 medical officers supervising 7,500 labourers in fourteen camps extending from Dimapur to milestone 42. By 3 December 1942, more medical officers had arrived and 22,500 labourers were deployed in thirty camps up to milestone 114. At the end of the cold weather the medical department were supervising 2,380 labourers in four camps in the jungle. During this period of nine months the sick rate was kept at a level of 3 per cent and the death rate at 2.5 per cent. During the cold weather greater insistence was laid upon the necessity of every hospital having a large vegetable garden, and the general health of the labour was well maintained.

In the spring of 1943 the medical headquarters were moved up to 3,200 feet at Zubza, at the milestone 36 where a large well organised hospital of 150 beds was built so that debilitated cases could convalesce in a cooler climate and where seriously ill and surgical cases could receive adequate treatment. In May and June 1943, there was a lull in the work. By July 1943, the tempo had again increased with camps established on the Palel strip which stretched along the road to Lokchao. By the beginning of 1944, 30,000 labourers were at work and camps on the Tiddim Road had been opened. In the early spring of 1944 all the forward camps had to evacuate to the base because of the Japanese advance on Imphal and Kohima. By mid-1944 the health of the Dooar labour was a matter of great concern as they had not the stamina to do any real work for any length of time despite the fact that they were fed on IOR rations and the death rate in their ranks was appallingly high. The trouble was due to a gross Vitamin A and B deficiency brought on by the Bengal famine in 1943-44. By that time large supplies of multi vitamin tablets were, however, available and they proved invaluable. After the relief of Imphal, the labour force again pushed up the road as far as Tamu and a peak point was reached in February 1945, when 36,372 labourers were at work. In addition, 5,000 labourers on the Golaghat-Dimapur Road were supervised by a medical officer from Dimapur and in all some seventy camps were under the control of the medical department.

There were 2,923 deaths during the project in an average labour force of 19,080, which represents a mean annual death rate of 4.36 per cent.

#### AIJAL ROAD PROJECTS NOS 1 AND 2

As the Ajial road was neither one of the main evacuee routes nor one of the main spring boards for the Burma invasion it never captured the imagination in the same way as did the Ledo and Manipur Roads. Nevertheless, it was a major road project.

The work to be undertaken was the construction of a jeep track eight feet wide and ninety-three and a half miles long from Dwarbund, in the plains of Cachar, to link up with the garrison town and advanced base of Aijal, in the heart of the Lushai hills, roughly following the old and very primitive pony track over the mountains. Later, as military requirements increased, the original eight feet jeep track was extended to twelve feet and later still to a fourteen feet wide road suitable for all ordinary military supply vehicles.

Starting in June 1942, with 600 the labour force was increased to well over 12,000 monthly. Most of the labour consisted of Bengalis recruited usually from Sylhet and Eastern Bengal. As the food position in their own country deteriorated and frequently famine conditions prevailed, there was an abundant supply of recruits, but they were often undernourished and weak. All were looked after, fed and inoculated against cholera at a special rest camp outside the barrier at Loharbund before admission. In addition, all those who were admitted were vaccinated against small-pox and inoculated against typhoid-paratyphoid on arrival at their camps. Owing to the strenuous nature of the work and the unnatural living conditions, it was found that, apart from sickness, the general stamina of the labourers suffered deterioration after four to six weeks, and batches had often to be repatriated and replaced; this accounted for the large total number employed.

It was realised from the outset that the communications handicap must be accepted and the medical organisation so designed that all serious cases could be dealt with on the spot, particularly owing to the great delay involved in transporting the sick to the base on stretchers. The question of a large hospital at the base was ruled out until such time as the road was built and transport freely available. The first step, therefore, was the building of a good indoor hospital, for 80 patients, 23 miles from the base at Chhimluang. Later, by the end of August 1942, a second indoor hospital, with accommodation for 90 indoor patients, was completed at Kolasib, a Lushai village 40 miles from the base and 52 miles from Aijal.

Reference has already been made to the problem of transporting serious cases and the necessity, in consequence, of establishing adequate indoor hospital accommodation at intervals and within reasonable distance of the camps; these were finally spaced at about 20 mile intervals. The third indoor hospital was established 34 miles from Aijal and 60 miles from the base, at New Mualyum, situated near the top of a hill at an altitude of 3,400 feet. This had accommodation for 200 patients. From here it was found possible to evacuate all suitable cases by boat. To complete the scheme all that was needed was a small fleet of specially equipped boats and a good clearing indoor hospital at Katakhal in the plains, about 100 miles distance from Kulicherra and within two miles of Silchar and a few hundred yards off the main line railway station at Katakhal.

With the extension of the work from January 1943 onwards, and with camps all the way to Aijal, Mualyum hospital proved to

be of the greatest value to the medical organisation. Not only did it function as a large central indoor hospital covering nine camps spread over 22 miles of road, but in addition it also dealt with a constant flow of sick evacuees from all the camps from Ajjal to Bualpur—a stretch of more than 40 miles. These sick evacuees arrived either on foot or on stretchers with their travelling report forms and were at once examined and assessed as to their fitness to proceed or the necessity for further treatment. When fit to proceed, they were sent or carried down to Kulicherra—3,000 feet below—where the hospital boats waited to take them on a two and a half days journey down the stream to Katakhal, where they again passed through the hands of the medical officer in charge, who either kept them in Katakhal hospital for a few days for further care and treatment, or, if fit to travel, sent them on at once by train to their homes or, exceptionally, by ambulance to the civil hospital, Silchar. This evacuation scheme worked smoothly and was a great success, and it was certainly the means of saving a large number of lives which would otherwise have been lost in the extremely slow and arduous process of evacuating the sick all the way to Loharbund. Altogether nearly 10,000 cases passed through the clearing hospital at Katakhal and were sent on safely to their homes. Out of this number only four deaths occurred, two from pneumonia, one from dysentery and one from cerebral malaria—contracted or due to a relapse on the journey down.

The next and last of the series of indoor hospitals to be constructed was at Neubawi, ten and a half miles from Ajjal, and well situated at an altitude of 4,300 feet. This hospital was completed by March 1943, and had accommodation for more than 100 indoor patients, including its Isolation block, it served all the camps between Ajjal and milestone 15 camp, both as a hospital and a medicine distributing centre, and its usefulness was shown by the very large number of cases which passed through its hands, when its accommodation was often strained.

During the whole of 1943 the medical organisation had one large indoor hospital at approximately every twenty miles of the road and, in addition, the nineteen major camps were fully equipped with dispensaries and adequate indoor sick quarters. The smaller camps had also a small dispensary with a compounder in charge. Before the end of the year 1943 the main obstructions to regular transport at the long and difficult rock faces at the third, eighth, fourteenth and nineteenth miles from Ajjal had been overcome and with a fleet of 15 cwt trucks regular convoys, with proper timings at five gates, were soon organised. This completely revolutionised the whole position and for the first time adequate transport was available for supplies and for the transport of sick to the main hospitals or down to the base at Loharbund. The Loharbund hospital was at once enlarged to meet these additional requirements and from 1944 onwards functioned as a useful base hospital and evacuation centre, with Silchar twenty three miles distant. This enabled the river evacuation service from Mualyum and Kulicherra to Katakhal and the hospital there to be closed before the end of the year 1944.



In addition to the large number of labourers employed the medical organisation throughout both the projects shouldered the entire medical responsibility for all service personnel and Porter Corps, either stationed on the road or during movements up and down the road, including water supplies of the military camps. Permanent sections of Sappers and Miners were stationed at central points where blasting operations were in progress. In addition, observation posts were built at vantage points every twelve miles and were for a time manned by RAF. Later they were replaced by units of the IAOC. Apart from the camp dispensaries, where treatment was always available for them as out-patients, all the indoor hospitals were provided with special separate *basha* wards for military cases. Altogether 3,870 Service personnel were treated, mostly as out-patients but quite a number as in-patients.

In November 1943, ITA help was enlisted for the evacuation of refugees from the Chin hills, following the fall of Falam during the Japanese advance at that time. Their only way out was a mountain path which joined the Aijal Road at the third mile from Aijal, and here an inoculation booth was arranged which all had to pass, and not a single refugee was able to evade inoculation against cholera. From there they were looked after and fed at the fifth mile camp before being evacuated down the road by trucks to Kolasib, where the hospital staff provided them with a good meal before they were sent on to Loharbund.

The ITA water service established six electric silverplate sterilising units at key points and these gave very good service throughout, and, in addition, there was one at Loharbund and one at Katakhal established in January 1943. Over and above the ordinary camp water supplies, a considerable number of fully protected road-side drinking water sites were established at regular intervals for the benefit of labour and military personnel constantly moving up and down the road; these were all labelled with notice boards and drinking water sites for transport animals were also clearly labelled.

One of the biggest and most important problems that had to be tackled and solved was the question of sanitation, this was an uphill struggle the whole time and meant a slow and painful process of educating large numbers of men entirely ignorant of the importance of this subject. The difficulty was further increased by constant changes of labour. With the active interest and co-operation of all camp commandants in enforcing the necessary discipline, a high degree of success was eventually achieved. Adequate numbers of well-built deep trench fly-proof latrines were constructed at the back of the camps, and the whole area very securely fenced and guarded. Similar deep fly-proof pits for rubbish disposal were also provided at easily accessible points near the camp *bashas*. Roadside latrines were also constructed at approximately every half to one mile of the road and these were clearly labelled with notice boards and supplied with racks of bamboo *chungas* filled with water and inspected daily by the assistant medical officer responsible for that particular area. These

were very successful and after the first few months the whole road was clean and free from pollution

The general organisation of the medical work was greatly simplified by regular transport facilities which permitted the closing of all the main indoor hospitals up the road. All the camps were equipped with dispensaries and sick quarters, as before. They could then be moved, however, as self-contained units with adequate accommodation for temporary indoor patients and separate isolation *bashas* for contagious and infectious diseases. Three of these, situated at the third mile, Kolasib and Chhimluang, had rather more elaborate arrangements and could deal with extra numbers when required. The office and main headquarters were then transferred to the base at Loharbund and the enlarged hospital there functioned as a useful base hospital and evacuation centre.

Every effort was made to ensure protection as far as possible against any preventable diseases by inoculation. Altogether 256,598 inoculations were given against typhoid, paratyphoid and cholera, and 131,719 persons were vaccinated as a precaution against small-pox. For the permanent staff and those stationed permanently on the road, inoculation against cholera was repeated every three months, and every six months in the case of typhoid—paratyphoid. These diseases were prevalent in an epidemic form in most areas from which the labourers were recruited. It is satisfactory to record that as a result of these strict precautions not a single epidemic occurred during the whole duration of these projects. There were, altogether, 17 cases of small pox, 7 cases of cholera and 12 cases of typhoid fever. Each individual case had contracted the disease prior to admission through the barrier at Loharbund, and the furthest that any cholera case got up the road was the second day's march from the base. They were immediately isolated in specially built and protected isolation *bashas*, which were available and always ready for use at every camp and hospital. There was not a single instance of the infection being conveyed from these patients to anyone else on the road.

Malaria provided by far the highest number of cases of any one single disease, and 51,003 cases altogether were treated. This was a very serious problem, particularly as there was a continual shortage of quinine and anti-malaria drugs. For the most part, use had to be made of insufficient stocks of quinine sulphate in injection form only, so as to obtain the greatest benefit possible. The lower camps were, of course, the worst affected and at times as many as 50 per cent of personnel were suffering from this disease, and in some instances the abandonment of camps in consequence became necessary. It was for the most part within the area Loharbund to Beelkatia, with an altitude between 800-1,700 feet, that malaria was at worst. The incidence of malaria decreased above the height of 2,000 feet. The intensity of malaria infection can best be appreciated by reference to the experience of a few of the camps concerned during the malaria season. It was found impossible to maintain labour in the Kukipunyi area, and camps there had to be closed. At the halfway camp—

fifteen miles from Loharbund—it was not uncommon to find 50 per cent. of the labour force on the sick list. It is extremely unlikely that any person working in this area escaped without at least one attack of malaria.

From Kolasib to the thirty-fourth mile—a distance of eighteen miles—the average altitude of the road is about 3,000 feet and it was found that the improvement in malaria incidence was quite marked in the camps on this stretch.

Over a period of sixteen months ending 30 November 1943, 37,863 fresh cases of malaria were treated. This indicates that fully 30 per cent of all personnel on the road, for which the medical organisation was responsible, suffered from this disease. Out of this number and covering the same period, there were altogether 136 deaths, which works out at 0.35 per cent. of the total malaria cases.

As regards spleen rates, though data is admittedly far from complete, the following records are of interest and allow of certain conclusions. Kukipunji, at the seventy-eighth mile and twelve miles from Loharbund, was at an altitude of 800 feet only and had a spleen rate of 80 per cent. Kalasib, at the fifty-second mile at 2,350 feet had a rate of 31 per cent. while the rate at Bualpui, twelve miles further on and at 3,200 feet, dropped to 16 per cent. Mualyum village, six miles further at a similar altitude, showed a rate of 20 per cent. In this village a very careful examination was made of 128 children and it is interesting to record that of the 26 positive by far the greatest number were the older boys who were employed at intervals for work in the *jhumes*.<sup>4</sup> This certainly indicates that most of the malaria in this village was contracted while the people were working and living temporarily in their *jhumes*, 2,000 feet or more below, during the rice planting season.

This was again confirmed at Neibawi—ten miles from Ajal and at 4,200 feet. The Lushai village showed a rate of 10 per cent. while the Nepali village showed a rate of 4 per cent. This village in particular did a great deal of *jhuming* and it was found that the rate in a *jhume busti*<sup>5</sup> more than 2,000 feet below had a spleen rate of 44 per cent. Again at the ninth mile, in the Lushai village of Siphir, the rate was 3.6 per cent. while at the large village of Sehlawh—1,500 feet below—the rate was up to 19 per cent.

The obvious conclusion from these figures is that as far as the higher altitudes were concerned the incidence of malaria in the Lushai villages would be extremely low if it were not for their work taking the villagers at certain seasons of the year down to their *jhumes*, where they become infected.

Out of 2,385 blood slides examined for malaria in the Mualyum laboratory, 1,759 were found to be positive. Of these 1,282 were malignant tertian. Of the remainder, 426 were benign tertian, 15 quartan and 38 mixed, malignant and benign tertian.

<sup>4</sup> Area of jungle cleared for cultivation by burning the undergrowth

<sup>5</sup> Group of village houses.

A considerable and alarming proportion of the malignant tertian cases developed serious complications usually of the cerebral type—necessitating immediate and very energetic treatment. In view of this and the difficult conditions which so often prevailed, it will not be considered that the percentage of deaths to cases at 0.35 per cent is unduly high.

There were altogether 112 cases of cerebrospinal meningitis with 21 deaths and it may be of interest that most of these occurred at the third mile camp from Ajal and were usually treated at Neibawi hospital.

Another matter of possible interest may be worth mentioning on the subject of tropical ulcers or Naga sores. By far the great majority of these cases which occurred on the project were contracted by labourers working on a mile stretch of rock face at the eighth mile from Ajal, and for some reason there must have been some particular irritant factor present. It was found that protecting the legs with gunny cloth wrapping was a useful preventive measure. A very successful treatment was universally adopted for these cases in hospital. After cleansing, the sloughs were cleared as quickly as possible by cauterising with strong carbolic and copper sulphate solution, followed by a thick dressing of boracic powder which was covered with lint and a thick pad of wool and left undressed for several days. When changed, the ulcer was washed with saline or boracic lotion and the boracic powder dressing reapplied. Better and much quicker results followed this treatment than any of the number of others that were tried at different times.

There were altogether 416 deaths from all causes and, in relation to the total population concerned, this works out at 1.97 per 1,000. Malaria and dysentery accounted for by far the greatest number of deaths. Of 51,003 cases of malaria, 169 were lost, and this works out at 330 per cent in relation to the number of cases.

#### STATISTICS

The statistics relating to the Ajal Road Projects Nos. 1 and 2 are as follows. These cover a period of thirty-one months from 1 August 1942 to 28 February 1945 —

Total population under the care of the medical organisation, including permanent staff	211,175
Average daily population over the whole period	4,512
Total number of all deaths—causes	416
Mean annual death rate	3.57
	per cent
Total number of cases treated (all diseases)	95,648
Total number of inoculations against cholera and typhoid	256,598
Total number of vaccination against small pox	131,719
Total number of cases of malaria	51,003
Total number of cases of dysentery	6,388
Total number of cases of cerebrospinal meningitis	112

Total number of cases of small-pox	..	17
Total number of cases of cholera	.	7
Total number of cases of typhoid	...	12

*Analysis of deaths giving main causal diseases*

Malaria	.	169
Dysentery	.	81
Cerebrospinal meningitis	.	21
Pneumonia and other respiratory diseases	.	62
Small-pox	.	2
Accident		20
Suicide	..	2
Homicide	.	1
Cholera		3
Typhoid	.	5
Other diseases		50
Total	.	416

*Malaria records of the Ajal Road Project—1943*

Total number of anopheline larvae examined—1939

<i>A. minimums</i>	.	120
<i>A. aconitus</i>	.	24
<i>A. vagus</i>	.	147
<i>A. leucosphyrus</i>		278
<i>A. maculatus</i>		386
<i>A. karwari</i>	.	19
<i>A. barbirostris</i>	..	19
<i>A. aitkeni</i>	.	946
Total	.	1,939

<i>Name of mosquitoes</i>	<i>Number identified</i>	<i>Number dissected</i>
<i>A. minimums</i>	58	58
<i>A. vagus</i>	236	105
<i>A. leucosphyrus</i>	93	92
<i>A. maculatus</i>	99	99
<i>A. karwari</i>	66	8
<i>A. hyrcanus</i>	37	8
<i>A. aitkeni</i>	164	164
Total	753	534

Total number of blood films examined for malaria parasites—2,385.

Total number of positive slides—1,759.

Malignant tertian	.	1,282
Benign tertian	.	426
Quartan	..	13
Malignant and benign tertian mixed		38
Total	...	1,759

## PATHARKANDI AERODROME PROJECT

This description can be taken as representative of the medical organisation during the construction of the large aerodrome projects. On 1 May 1944, it was in its early stage of development, and local Bengalee and Manipuri labour was pouring in, soon to reach a figure of several thousands, with a target figure of 10,000 apart from the various military units attached.

With cholera around Patharkandi, and even inside the requisitioned area, there could be no delay in tackling the sanitation problem, and a large number of well-built latrines were erected at selected sites. These were of similar design to the Aijal road latrines which had proved very successful, but owing to the high water level in the soil at Patharkandi they had to be modified to the extent of building up the plinth to a height of four to five feet and revetting the trenches with bamboos before covering, in order to prevent collapse of the inside walls.

A large number of the labourers were imported from outside districts and their accommodation was arranged in a series of evacuated Manipuri *bustis* running north and south near the east side of the aerodrome. The houses were large and well ventilated and *machans*<sup>6</sup> were rapidly fitted up inside and latrines built at regular intervals in between the *bustis*. In June 1944, it was decided to employ tea garden shadow labour, and a particularly well built and laid out camp was constructed to accommodate about 1,200 labourers, it was fully equipped with cook houses, rubbish disposal pits and latrines with adequate fencing as a sanitary control measure. All these camps were provided with tube wells for the supply of water.

In view of the very important question of malaria in relation to the selection of sites for the residential domestic quarters to be established, a complete malaria survey of the whole area was essential and this was undertaken and completed before the end of July 1944, and later a similar survey of the north project area was completed. These two project zones were situated respectively on the east and west sides of the Longai River which runs down the centre of the valley, with foot hills running north and south parallel to the river and about four miles distant from either bank. The survey revealed several points of interest and value, notably that intense malaria prevailed in the areas adjacent to the foot hills, where spleen rates of up to 78 per cent were recorded in a particular *busti* which had previously been selected for the American domestic quarters. Malaria incidence was found to fall away rapidly towards the river and centre of the valley, four miles distant, where spleen rates as low as 10 per cent were recorded. On these findings were based the final choice of where the residential quarters should be built.

A total of 1,121 cases of malaria, both civil and military, were treated. Nearly all the indoor cases were treated by the very

<sup>6</sup> A raised matted bamboo platform one and a half feet high and six feet wide running the length of the house for sleeping purposes.

economical method of sulphate of quinine injections, two of these being sufficient in most cases to establish complete remission of temperature, a third injection only occasionally being required. Over 90 per cent. of these cases showed splenic enlargement before treatment.

Dysentery provided a total of only 202 cases, an exceptionally low figure considering that fully 90 per cent. of the labourers were Bengalee and Manipuri and that the former in particular are well known sufferers from this disease in a chronic or latent form. Some of these cases, however, of the bacillary type were very severe, requiring large quantities of saline by injection to save life. It was fortunate that only one case was lost from this disease.

Insistence on adequate ventilation of the *bashas* and avoidance of over-crowding were possibly responsible for the fact that there were only two cases of cerebrospinal meningitis—one military and one ITA labourer both of whom recovered.

Ulcers and sore feet provided large numbers of out-patients and a few in-patients but there were very few cases of true Naga sore.

Twenty-three pneumonia cases, both civil and military, were successfully treated apart from a large number of others with milder forms of respiratory complaints.

A brief summary of the more important figures is given below. It will be seen that the total population for which the medical organisation was responsible amounted to 12,020. This figure also includes the labourers working on the north project, who received the same facilities for treatment as those on the south project. Out of this total of 12,020 there were altogether 3 deaths to record, 1 from accident and the other 2 from acute bacillary dysentery and malignant cerebral malaria.

Although it is perhaps a little disappointing that the work on this project was suspended before its successful completion, and that the medical organisation built up for the expected full requirements had therefore to be disbanded, yet it did serve a useful purpose as long as it was required in looking after the large numbers involved

#### *Summary of figures.*

Total number of fresh cases treated for all diseases . . . . .	5,263
Total number of inoculations against cholera and typhoid . . . . .	9,902
Total number of vaccinations against small-pox . . . . .	2,469
Total population—north and south project—including permanent staff under the care of the medical organisation . . . . .	12,020
Average daily population . . . . .	3,529
Total number of deaths—all causes . . . . .	3
Mean annual death rate . . . . .	0·11
	per cent.
Total number of malaria cases . . . . .	1,129
Total number of dysentery cases . . . . .	202

## DIBRUGARH DISTRICT PROJECTS

These projects, the last of the large organised groups of labour, were responsible for work on six aerodromes and seven stone and road projects. Labour was recruited from the neighbouring gardens at the rate of 10 per cent of the acreage and replaced every three months. The peak numbers were 25,117 and the average daily working force was 11,359. The camp hospitals were supervised by the part-time services of local garden medical officers. There were 641 deaths with a mean annual rate of 1.88 per cent. The good health and low death rate was due to the fact that labour which showed signs of becoming debilitated was immediately evacuated for replacement by fresh labour from the gardens concerned.

The life of the medical and liaison officers was always strenuous and exacting and all too frequently under difficult conditions with an ill balanced diet. It must be recorded, with great regret, that eleven of them died as a direct result of their efforts and a great many others are, and will continue to be, in a permanently impaired state of health.

A list of ITA eastern frontier projects, giving details regarding average population, maximum population and number of hospitals provided is given below —

<i>No</i>	<i>Name of projects</i>	<i>Average population</i>	<i>Maximum population</i>	<i>Hospitals</i>
1	Ledo Project No 1	18,000	27,321	24
2	Ledo Project No 2	3,762	6,000	10
3	Ledo Project No 3	4,820	10,889	32
4	Manipur Road Project No 1	15,600	16,000	30
5	Manipur Road Project No 2	19,080	36,372	70
6	Aijal Road Project No 1	7,046	16,640	24
7	Aijal Road Project No 2	1,443	2,109	14
8	Golaghat-Dimapur Road	2,380	3,749	8
9	Chabua Aerodrome	1,698	4,725	2
10	Agartala Aerodrome	1,037	1,387	1
11	Cinnatollah Aerodrome	121	689	1
12	Dibrugarh Ghat Camp	675	1,130	—
13	Digboi Oil Road	632	931	—
14	Dilli River Namrup	575	1,168	1
15	Dinjan Aerodrome	900	2,958	1
16	Dergaon Aerodrome	2,178	5,153	2
17	Fushuri Aerodrome	1,551	2,083	1
18	Feni Aerodrome	1,111	5,086	1
19	Gurrupani Road	1,620	2,053	4
20	Golaghat Aerodrome	1,570	4,825	2
21	Golaghat Quarries	2,800	4,835	8
22	Hailakandi Aerodrome	1,278	5,485	5
23	Hasimari Aerodrome	5,300	8,986	8
24	Haselbank Sand	179	179	1
25	Jorhat Rowrah Aerodrome	1,972	3,700	2
26	Kumbhugram Aerodrome	3,591	9,541	5
27	Kulaura Aerodrome	687	2,192	1



<i>No.</i>	<i>Name of projects</i>	<i>Average population</i>	<i>Maximum population</i>	<i>Hospital</i>
28	Lanka Aerodrome . .	1,060	2,032	1
29	Lahoal Panitola Road	333	646	1
30	Margherita Stone .	400	1,907	1
31	Missamara Aerodrome .	3,125	5,536	2
32	Mohanbari Aerodrome .	1,240	3,569	1
33	Mokalbari Aerodrome .	250	708	1
34	Moran Aerodrome	1,833	3,115	2
35	Miscellaneous Projects	1,600	—	—
36	Nazira (Bibhubor) Stone	250	853	1
37	Naharkutia Stone	500	873	1
38	Oakland-Tinsukia Road	800	1,152	1
39	Pathorkandi Aerodrome	3,529	8,814	2
40	Sorbogh Aerodrome . .	5,500	6,409	4
41	Silchar West Aerodrome	2,800	4,594	1
42	Sookerating Aerodrome	1,800	3,968	1
43	Syllhet Aerodrome	3,118	8,553	2
44	Saikawa Sand .	875	1,992	1
45	Tinsukiam Tingri Road	144	144	—
46	Tilagaon Bomber Aerodrome	3,500	5,688	2
47	Tezgaon Aerodrome	1,200	2,090	1
Average daily working force		88,000	Daily sick rate	3.00 per cent.
Total deaths .		6,885	Annual death rate	2.23 per cent.
Road projects		12	Tea garden liaison officers	205
Aerodrome projects		25	Ex-Burma liaison officers	71
Stone and miscellaneous projects .		10	Military (seconded) liaison officers .	72
Total number of hospitals		259		
Medical staff employed per 500 labour.		{	Medical officer	1
			Compounder	1
			Malaria inspector	1

## APPENDIX VIII

### The International Red Cross

Since the year 1863, when a committee of five citizens of Geneva, with Henry Dunant as their leading spirit and General Dufour at their head, gave the first impetus to the world-wide movement of the Red Cross, based on the existence of National Societies, and to the first Geneva Convention of 1864, the Red Cross, both as a humanitarian and a social institution has attained far wider sphere of influence than its founders ever contemplated

The Geneva Convention devised a method of protection against acts of war and established the Red Cross to distinguish persons and establishments connected with the work of giving aid to the wounded and sick members of the fighting forces. Beginning with the care of the wounded and sick members of the fighting forces on land and on sea, the Red Cross soon extended its range of interest to embrace POW as well. During World War I and to an even greater extent during World War II, its chief function was to send relief to war victims.

In World War I, it became apparent that the protection which International Law afforded to the civilian population subjected to enemy occupation was still totally inadequate. The International Red Cross took upon itself, therefore, the great humanitarian task of extending its help to these unfortunate people. Its main task thus came to be to aid the war victims who could take no part in the actual war effort, viz, wounded and sick, POW and other persons deprived of their liberty, including children, old people and other civilian victims of war.

The term International Red Cross embraced the following institutions: (i) International Committee of the Red Cross (ICRC), (ii) League of Red Cross Societies, and (iii) National Red Cross Societies.

#### ICRC

The ICRC, besides carrying out all the duties described above, had as its most important duty the task of acting as a neutral intermediary between the opponents concerning aid to war victims. Over and above its functions as promoter of humanitarian undertakings and as a neutral intermediary between belligerents, the ICRC also assumed the duties of upholding the basic principles of the Red Cross, of receiving complaints concerning alleged breaches of the conventions, and of dealing with such problems as require handling by a neutral organisation.

## THE ORGANISATION OF THE COMMITTEE'S DEPARTMENTS

The ICRC was first established in Geneva in 1863 and confirmed by later decisions of the International Red Cross conference. It constitutes an association governed by Article 60 of the Swiss Civil Code, with its permanent headquarters at Geneva. The work of the committee—which has twenty-five members—all Swiss citizens—is directed by an executive board composed of the president and at least three members.

## ORGANISATION AT THE OUTBREAK OF WORLD WAR II

Before the outbreak of hostilities in 1939, the ICRC consisted of the Secretariat, the Editorial Staff of the *Revue Internationale de la Croix Rouge*, the Inquiry and Spanish Civil War Sections.

In 1938 the political horizon was over-cast and relations between the great powers were becoming strained. Faced with this ominous situation the ICRC felt that it was necessary to be prepared for any emergency, and, consequently, set up a commission for work in time of war. This body prepared in minute detail plans to establish the organisation of the ICRC on a war footing ; it took steps to secure premises for the staff of the central POW agency ; it drafted the text and notes to be sent to the belligerent powers, offered the services of the ICRC and made known to them the opening of the POW agency. It also drew up a list of delegates to be sent to the countries at war.

On the outbreak of war in September 1939, a number of divisions were organised to deal with the different activities of the committee. The committee held plenary meetings only in order to discuss particularly important matters of principle and to hear reports on the progress of work in the various services. The executive, including the president and five members of the committee, ensured the conduct of ordinary business and assigned work to the special commissions. The secretariat executed the decisions made by the committee and the executive for which there were eight sections :

- (i) Administrative and financial division.
- (ii) POW, civilian internees and civilians division
- (iii) Central POW agency
- (iv) Medical section.
- (v) Relief division.
- (vi) Transport and communication division
- (vii) Delegations division—special mission.
- (viii) Information division.

The strength of the secretariat staff increased from 363 in 1939, to 3,373 in 1944.

## THE ADMINISTRATIVE AND FINANCIAL DIVISION

This division concerned itself chiefly with the general administration of the committee's work, and recruitment and payment of its large staff and its delegates employed in all parts of the world

The expenditure by the ICRC was met by contributions and grants from National Red Cross Societies, grants made by the governments and revenue derived from the committee's investments and foundations. Some contributions from national societies to the ICRC for its ordinary work are given below —

	<i>In Francs</i>
India	11,986
United Kingdom	1,997,543
USA	121,762

Government grants from the following countries for the committee's war work were as under —

	<i>In Francs</i>
France	3,958,000
Germany	2,820,589
India	25,780
Switzerland	3,200,000
United Kingdom	3,740,052

Grants from Red Cross Societies for this work were as under —

	<i>In Francs</i>
India	112,260
United Kingdom	731,008
USA	5,230,760

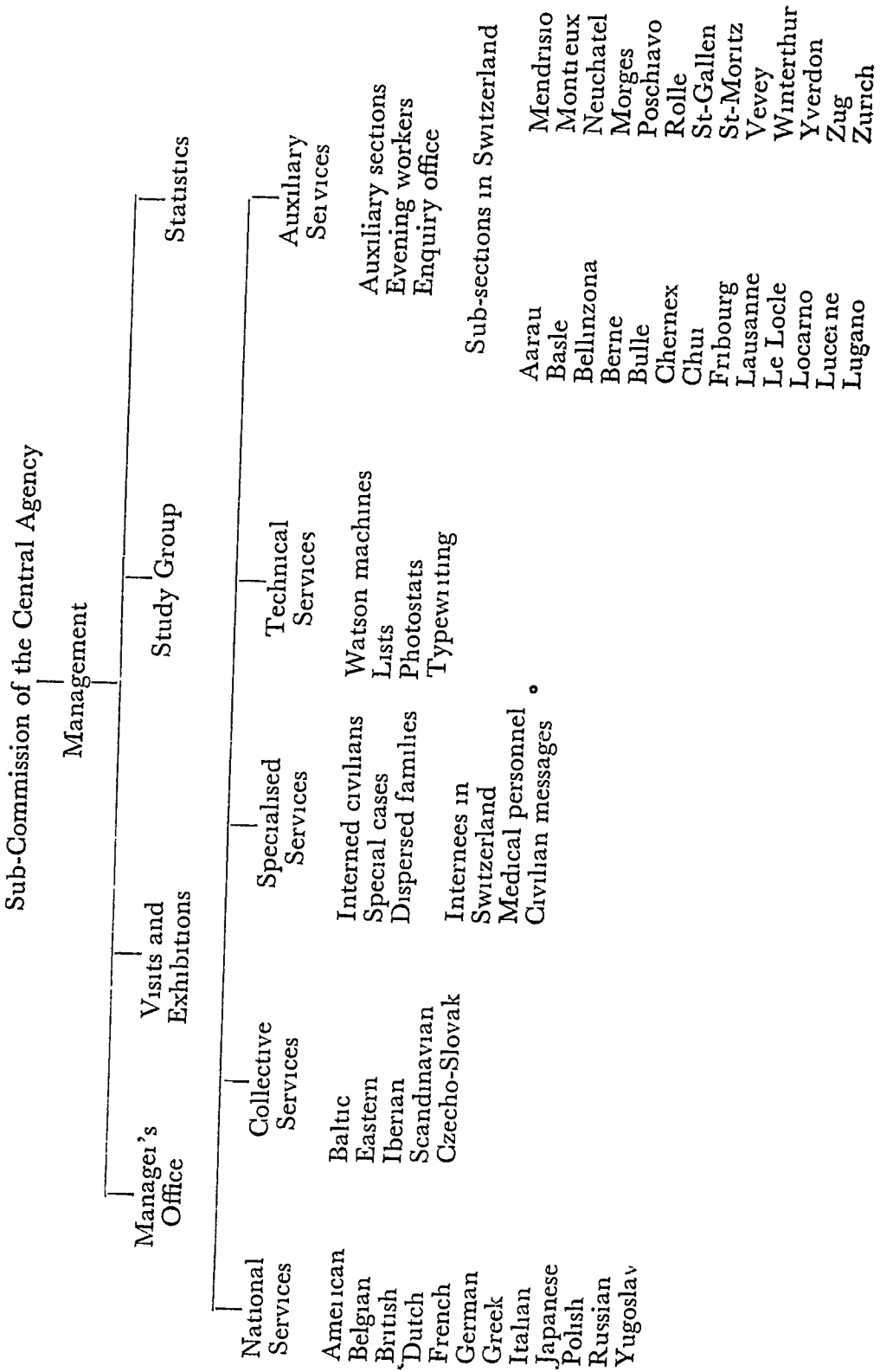
The expenses of the ICRC for the period 1940-46, amounted to 54,875,909 Swiss Francs and the contributions totalled 51,797,768 Francs

## POW, CIVILIAN INTERNEES AND CIVILIANS DIVISION

This division dealt with all general matters concerning the conditions of life of the POW, civilian internees and civilians. It also gave instructions to the committee's delegates abroad regarding the execution of their duties on behalf of the POW and civilian internees

## THE CENTRAL POW AGENCY

The organisation of the Central POW Agency and its activities are based on Articles 77 and 79 of the Geneva Convention of 1929, which related to the treatment of the POW, and under which the ICRC is permitted to organise such an agency. This agency is charged with the duty of collecting all information regarding POW which it may be able to obtain through any channels. This is transmitted as rapidly as possible to the POWs' own country. In the case of India, however, information was first sent to the United Kingdom. The general organisation of the central POW agency on 1 January 1944, was as under —



The basic duties of the agency may be defined as follows —

- (i) To centralise all information about POW and civilian internees such as the date of capture, deaths, transfers, sickness, etc
- (ii) To act as an intermediary between the belligerent powers for the collection of this information
- (iii) To serve as an information bureau on the basis of the data compiled in its card indices or of researches made
- (iv) To answer inquiries from public or private organisations or private persons

This central agency working under the authority of the agency division of the ICRC consisted of three sections, general, national and special. The general section dealt with the listing, filing, auxiliary sections, outside work, reception, card indexing, statistics, etc. During the war, the national section had twenty six sub sections, according to the countries from which the prisoners came. Indian PsOW were included in the British sub section. The special section was concerned with the medical personnel, civilian internees, immigration to Palestine, personal effects of deceased PsOW and internees.

The work of the national section was organised under the following twelve categories —

- (i) Sorting of correspondence
- (ii) Despatch and filing of correspondence
- (iii) Card indexing (formation, instructions, checking, statistics)
- (iv) Card indexing (team leaders filing)
- (v) Checking
- (vi) Transmission of messages
- (vii) Dealing with information, enquiries, tallies
- (viii) Initiation and follow up of enquiries, communications to enquirers
- (ix) Deaths
- (x) Regimental enquiries
- (xi) Telegrams
- (xii) Civilians

Information regarding the PsOW was transmitted to the central POW agency by the official information bureaux of the various belligerent governments, the National Red Cross Societies and the commandants of camps. This was collected, sorted out and sent to the next of kin of the POW and to their governments.

The classification of the Indian PsOW in Germany and Italy was a very difficult job because of the unfamiliarity of Swiss workers with Indian names and languages. A further complication was caused by the fact that in the early years of the war the numbers of soldiers were according to their regiments, and not on the block system. As the PsOW were not allowed to mention the names of

their regiments, but only their numbers, this led to considerable confusion. An Indian resident of Geneva, Mr. Madhukar, volunteered his services and was able to help the agency to some extent in solving this difficulty. The information that was received about each POW was transcribed on a special card and filed.

The amount of work done by the agency can be gathered from the fact that during the height of the war it employed as many as 2,061 workers. The following figures give an idea of the number of messages that had to be dealt with by the central agency.

British	1,811,000
French	5,893,000
German	9,451,000
Italian	4,906,000
The number of mail items received	54,500,000
The number of mail items despatched	50,400,000

#### MEDICAL DIVISION

The medical division of the ICRC had four sub-divisions : (i) national departments, (ii) health enquiries concerning sick prisoners, (iii) mixed medical commissions and (iv) artificial limbs. Besides these, there were the accountancy and statistical departments.

*National Departments :* Each national department, (American, British, French, German, etc.) had its own card index system showing all medical cases. These concerned all prisoners who belonged to the medical services of the armed forces. The data was collected from the official and semi-official lists forwarded direct to this section by the detaining powers and the slips concerning hospital personnel. All cases concerning medical personnel of the armed forces were handled entirely by the medical division, the central POW agency merely receiving a slip to show the action taken in each case. The national departments of the medical division also dealt with all matters concerning the issue of identity papers to the prisoners who were members of the medical services of the armed forces and the safeguarding of privileges to which they were entitled under the terms of the convention. This section also undertook enquiries or requests concerning personnel of the medical services of the armed forces.

*Health Enquiries Concerning Sick Prisoners* This department had adopted two methods of procedure. Enquiries about individual cases were made by letters addressed to the senior medical officers of the POW camps, on receipt of which the camp authorities sent a complete diagnosis and full details of the case. At other times enquiries were made by the national sections of the central agency through the committee's delegations resident in the country. These were usually concerned with cases of mental diseases or details regarding prisoners who were seriously ill and, therefore deserving repatriation.

*Mixed Medical Commissions* . This department drew up lists of the sick and wounded PsOW to be submitted to the mixed medical

commissions These commissions were appointed, in accordance with the Geneva Convention of 1929, for the purpose of deciding the suitability of prisoners for repatriation Each commission comprised two neutral doctors, usually nominated by the ICRC, and a third nominated by the detaining power The lists of prisoners recommended for repatriation were also forwarded to the protecting powers, *ie*, to the representatives of the neutral states which had undertaken to protect the interests of a belligerent in respect of the hostile forces The powers concerned invariably requested the ICRC to instruct one of its delegates to accompany the repatriates on their journey by land or sea

*The Artificial Limb Department* This department furnished POW of every nationality with artificial limbs, false teeth, glass eyes, spectacles, hernia belts and other similar articles During the war, the committee requested the British Government to allow the manufacture in Switzerland of artificial limbs required for British PsOW, on the understanding that the expenses would be reimbursed and the raw materials replaced by their government The German government also agreed to the despatch of an orthopaedic mission from Switzerland in 1942 This mission supervised the fitting of 255 artificial legs and 128 artificial arms to the British prisoners in the German camps A Swiss orthopaedic mission was also organised for aid to about sixty disabled Polish prisoners False teeth and spectacles were collected in large quantities and sent by the medical division to the POW camps The ICRC also converted a dining car belonging to the International Wagons Lits to serve as a dental consulting room and workshop for artificial limbs and this visited POW camps in Europe periodically

The medical division expended considerable time and trouble in identifying members of the medical personnel who had lost their identity certificates The ICRC also played an important part in the repatriation of seriously sick and wounded PsOW There were over ten such repatriations in Europe during the course of the war The exchange of these repatriates took place usually in neutral ports like Smyrna, Lisbon and Goteborg Exchange of POW also took place in Goa, Portuguese India Altogether over 8,500 Allied and 16,000 Axis prisoners were thus repatriated The main burden of the repatriations fell entirely on the ICRC

#### RELIEF DIVISION

Relief of PsOW and civilian internees formed a very important part of the duties of the ICRC

There were three kinds of collective relief—general, medical and intellectual General relief involved supplying foodstuffs, toilet necessities, clothing, boots and other items, including special food for sick and convalescent prisoners Medical relief consisted of dressings, pharmaceutical products, surgical instruments, etc Intellectual relief comprised the supply of books, games, musical instruments and all



materials necessary for the assistance of students and technicians in the pursuit of their studies. Articles of individual relief were sent directly to a prisoner by his family through postal channels. Collective relief was handled by the ICRC in vast quantities and was sent out in standard parcels or in bulk form. There were several ways in which a prisoner could receive relief parcels. The simplest method was for the National Red Cross Society to supply the packages and forward them to the ICRC or its delegates in neutral ports like Lisbon. They were then transferred to Geneva, where they were checked and forwarded to the respective POW camps. The second method was for the National Red Cross Society to send money to the ICRC which in turn, either through its delegates or directly, bought the goods needed in a country. These goods were then sent to Geneva and thence to the camps concerned. The third mode of procedure was for a National Red Cross Society to send money to the delegates of the ICRC stationed in a hostile territory for the purchase of necessary goods on the spot for forward transmission to the POW camps in that country.

Relief for Indian PsOW and civilian internees detained from 1940 to 1945 in different European countries, especially in Germany and Italy, had to be adjusted according to the conditions in the countries of detention on the one hand, and in accordance with the wishes of donors on the other.

At the beginning of the war the organisation of the British Red Cross and the Order of St. John of Jerusalem decided to send to all the PsOW of the Commonwealth countries a standard ration of one food parcel per man per week, as well as medical and surgical parcels. They also decided to send uniforms, underwear, toilet articles, games and books in quantities specified by prisoners' representatives in the camps. It was decided that POW of a particular country should always receive, preferably, parcels sent from their country of origin and that they should receive supplies sent from other parts of the Commonwealth only if transport difficulties made any other system temporarily impossible. This decision was particularly useful for Indian PsOW who thus received parcels specially prepared to satisfy their tastes, habits and religious precepts.

Once the camp authorities in Germany, Italy, occupied France and the occupied countries of the Balkans announced the presence of Indian PsOW in their camps, the ICRC arranged with the British Red Cross for a sufficient supply of special parcels of food comforts and clothing. The contents of Indian food and comfort parcels were as follows .—

<i>Indian Food Parcel</i>		<i>Indian Comfort Parcel</i>	
Biscuits	. 1 tin (8 ounces)	Towel	One
		Pullover	. One
Chocolate	1 tin (4 ounces)	Shirt	One
		Scarf	One
		Pair of gloves	. One
Fish	1 tin (16 ounces)	Pair of drawers	One

<i>Indian Food Parcel</i>		<i>Indian Comfort Parcel</i>	
Fruit	1 tin (8 ounces)	Vest	One
Butter	1 tin (8 ounces)	Pair of socks	Two
Milk condensed	1 tin (14 ounces)	Handkerchiefs	Two
Sugar	2 bars (4 ounces)	Balaclava <sup>1</sup>	One
Tea	1 packet (2 ounces)	Pair of slippers	One
Salt	1 packet 2 (ounces)	Tooth brush	One
Eggs dried	1 tin (14 ounces)	Tooth powder tin	One
<i>Atta</i>	1 tin (16 ounces)	Hair brush	One
Rice	1 packet (16 ounces)	Comb	One
Curry powder	1 tin (2 ounces)	Razor blades <sup>1</sup>	Four
Soap bar	Two (4 ounces)	Shaving sticks <sup>1</sup>	Two
Soap tablet	One (2 ounces)	Bath powder tins	Two
		Cakes of soap	Two
		Spool of black thread	One
		Buttons	Four
		Darning wool rolls	Two
		Needles	1 packet
		Chewing gum	6 packets
		Pencil	One
		Sponge <sup>2</sup>	One
		Belt <sup>2</sup>	One
		Hair oil <sup>2</sup>	2 bottles

In addition to the above, Indian cigarettes, medical and clothing parcels were supplied on demand from the camp leaders. Clothing parcels contained uniform and other necessities. Intellectual relief parcels contained books in Urdu, Hindi, Gujarati and other Indian languages, musical instruments, tools and material for handicrafts and indoor and outdoor games.

In order to facilitate the nomination of Indian representatives for larger groups of Indian PsOW and to ensure the proper execution of relief schemes, the ICRC requested the detaining powers to group the Indian PsOW in only a few camps in Germany. Indian PsOW were mostly kept in Stalag 3A, 4, DZ, VC, 8B, 12A and B, 18C and B (Merchant Seamen) and Oflag 54, 6B and 8D.

In Italy, in spite of repeated interventions, the situation remained confused. Numerous Indian PsOW were held in Sulmona, Rezzallo, Villa Oliveto Camps—63 and 91, and many others.

India decided, in 1941, to forward 1,000 parcels per week for Indian POW, but this scheme had unfortunately to be abandoned in 1942 because of transport difficulties. The Indian comforts fund in London, which had mainly organised the packing of 2,000 parcels per week, helped the British Red Cross Society to deliver a sufficient number of Indian parcels. Humanitarian associations in Egypt also decided to provide special gifts for Muslim PsOW.

In August 1945, the Indian Red Cross Society contributed Rs 20,000 to the ICRC for the relief of 80 distressed Indian families,

<sup>1</sup> For Non-sikhs

<sup>2</sup> For Sikhs

totalling 400 persons, stranded in Shanghai. These funds were forwarded to the international committee's delegation in Shanghai, who handed them to the local representative of the Indian Red Cross. In November 1945, a sum of Rs. 100,000 was received in Geneva by the International Committee for transmission to Bangkok for the relief of some 22,000 workers. It proved impossible to carry out this transfer direct from Geneva, and the funds were returned to India. It was, however, found possible to transfer these later to Siam. These Indian workers had been employed by the Japanese on the Siam-Burma Railway. When the Japanese armed forces capitulated in Siam, these workers were stranded and left without food or shelter. It was at this juncture that the ICRC took action on their behalf.

During the period of war there were about 2,000,000 Allied prisoners in Germany, for whom 400,000 tons of goods were despatched from Switzerland, of a total value of approximately 3,300,000,000 Swiss Francs. Right through the war, the British, and later the American Red Cross Societies supplied their nationals through the intermediacy of the ICRC with one five kilogram food parcel per man per week except for the last four months during which transport conditions in France and Germany did not allow the regular distribution of a weekly parcel.

All relief distributions were made on a collective basis and according to standing rules and instructions received from the various Red Cross societies. The total quantities despatched by the ICRC were as follows :—

1940—	4,518,149 Kilos=	614 wagons.
1941—	45,594,528 Kilos=	5,531 wagons.
1942—	58,186,980 Kilos=	6,882 wagons.
1943—	123,659,844 Kilos=	13,575 wagons.
1944—	112,280,088 Kilos=	9,885 wagons.
1945—	86,744,154 Kilos=	5,822 wagons.
<hr/>		
Total	430,983,743 Kilos=	42,309 wagons.

It is obvious that an institution like the ICRC was not at first organised to undertake transport of this magnitude. An organisation had to be created, therefore, and a large number of difficulties had to be overcome.

As early as 1943 the committee had drawn the attention of the American and British Governments to the increasing difficulty of reaching the PsOW owing to the deterioration of the German railway system and the possibility of its complete breakdown. To obviate the difficulty, towards the end of 1944, a limited number of railway wagons, 318 in all, were supplied by the French and Belgian Governments, while 474 motor trucks and 137 trailers were furnished from different sources. With these railway wagons, the International Committee formed what were called block trains, that is to say, trains leaving Switzerland for a given destination as a whole unit of about fifty wagons and returning complete but empty to the starting point. During the last months of the war, these block trains on their return

journey brought PsOW as well as civilians liberated from concentration camps. The motor trucks were of the greatest value, particularly during the two months preceding the cease fire. They not only helped the committee's delegates to reach the camps with which communications had been completely cut off, but also to feed columns of POW who had marched towards central Germany. In carrying out these duties these lorries had very often to cross the firing lines. They were first driven by Swiss drivers, later on they were driven by the PsOW whom the German Government had put at the disposal of the committee. Every individual column was under the command of a Swiss column leader. From May 1945, onwards, when the war in Europe had come to an end, the International Committee further helped by bringing supplies to the Allied PsOW pending their liberation. When this activity came to an end there were still about 8,000 tons of supplies left in Switzerland which belonged to the National Red Cross Societies. Following protracted negotiations with the Allied military authorities in Germany, these were forwarded, from October 1945 onwards, to centres indicated by them for distribution according to their wishes.

During the war, the ICRC remitted the following amounts for collective relief to PsOW and civilian internees and other war victims

1939—	9,153	Swiss Francs
1940—	26,565	„ „
1941—	394,639	„ „
1942—	496,536	„ „
1943—	683,294	„ „
1944—	1,910,055	„ „
1945—	1,440,308	„ „

#### INTELLECTUAL RELIEF

Early in 1940 the ICRC formed an intellectual relief service. The articles most in demand by the PsOW were recreational, educational and religious books. They also wanted, in large numbers, illustrated papers, reviews, magazines, books in braille for the blind and lip reading books for the deaf. In addition, materials for painters, sculptors, engineers, accountants and students were also demanded. Material for the organisation of games, such as dramas, sketches, musical instruments, musical scores, records, etc., were also constantly asked for. Sports gear—e.g., for football, cricket, tennis, boxing, etc., was in heavy demand. A drive for books was launched in Switzerland in 1943 and yielded over a million volumes. This was in addition to individual parcels of books and other material sent to POW directly through the post by their friends or relatives or by the National Red Cross Societies.

#### TRANSPORT AND COMMUNICATION DIVISION

The transport division had two sections, *viz*, communications and maritime transport. The communications section was responsible

for the sorting of incoming and outgoing mail and telegraphic and telephone communications. The International Committee had chartered on an average twelve to fourteen cargo boats which formed the Red Cross fleet. These vessels conveyed relief stores and mail for PsOW, civilian internees and, exceptionally, supplies for civilian populations stricken by war, these latter to be distributed by the joint relief commission of the International Red Cross.

#### DELEGATES DIVISION—SPECIAL MISSION

To play the part of an intermediary between belligerents in war time, direct personal contacts between the National Red Cross Societies and the government are indispensable. This was the task of the special mission undertaken by the ICRC in addition to its delegations.

The delegates had to undertake the most varied tasks. They had to represent on the spot the various departments of the Geneva organisation, in war ridden countries subjected to frequent bombing, shortage of supplies, economic blockade, etc. In addition, the delegates had to arrange for immediate relief of all kinds. A delegate often had to act as a lawyer, public health officer, merchant or diplomat. A number of them died at their posts in the execution of their duties. The growth of the delegation was so large that it may conveniently be described in its different phases.

*First phase* (September 1939, to June 1940) : During this period the ICRC despatched a special mission to Germany, France and Poland. It also sent delegations to the United Kingdom, Egypt and the Argentine.

*Second phase* (June 1940, to end of 1941) . With the extension of the war to various other theatres throughout the world, the ICRC was obliged to set up delegations in Italy, Greece, Australia, Syria, India, Yugoslavia, Italian East Africa, Ethiopia, British Africa, French Equatorial Africa, Ceylon, Newzealand and Rhodesia. A secretariat of the ICRC was also established during this period in Paris, Washington and Brazil.

*Third phase* (January 1942, to end of August 1945) : A delegation was set up in Ankara. With the extension of war to the Far East, delegations were appointed in Tokyo, the Phillipines, Shanghai, Singapore, Hongkong, Chungking and Siam. During the same period, due to the extension of the war in the Mediterranean, delegations were opened at Oran, Tunis, Tangier, Milan, Florence, Verona, Geneva, Turin, Naples, Yemen and the Gold Coast. Delegations were also established in the countries of South America.

*Final phase* (On the conclusion of hostilities) : The ICRC then had to concern itself to a greater degree with the Italian, German and Japanese captives of the Allies. Delegations were, therefore, set up in the Netherlands, Denmark, Norway and Poland. There were twelve delegations in 1940, and seventy-six in 1945. Even in 1947 there were still forty-three delegations.

The ICRC delegates provided the only contact which the POW and interned civilians had with the outside world, other than their own camp commandants and inspecting officers. They were the only people to whom the prisoners could speak frankly about their difficulties and their requirements. As such the delegate's reports played an important part in improving the lot of PsOW. These delegates paid periodic visits to the POW camps and submitted full reports. The number of camp visits made by the delegates to POW and civil internees' camps is given below —

<i>Year</i>	<i>Visits</i>
1939	25
1940	200
1941	700
1942	1,000
1943	1,250
1944	1,400
1945	2,200
1946	3,300
1947	1,100

The reports gave the address of the camp, the name of the camp leader, the number of POW, the date of the opening of the camp and the date of the last visit. They also gave a full report on the state of the camp under the following headings —

general description, quarters, food, clothing, hygiene, medical care and health, deaths, medical stores, dental care, religious activities, leisure and physical exercises, employment, money and personal effects, canteens, correspondence, relief supplies, discipline, complaints, interview with the camp leader, interview with the camp commandant, sundry interviews and general remarks.

On representations made by the Government of India, the delegates were able to persuade the German Government to cremate the dead bodies of Hindu PsOW as required by their religion. The delegates took every interest in Asian PsOW held in the camps in Europe. Muslims received copies of Korans and Rosaries, the Hindus religious books, Buddhists prayer wheels, and the Sikhs kirpans which had been previously confiscated by the German authorities. The International committee was also instrumental in publishing in Switzerland prayer books in the five most widely spread Indian languages and distributing them to Indian PsOW in Europe.

#### INFORMATION DIVISION

The ICRC established an information division to maintain contacts throughout the world with the next of kin of POW, civilian population, relief agencies, etc. This had two sub-divisions internal and external.

Internal Information (Information for the benefit of the ICRC) was obtained from periodical reports gathered by the delegations

from the International press of all particulars useful in their work. In addition, the ICRC established a wireless monitoring service which received all information regarding PsOW and war victims. This information was collected, classified, and acted upon.

External Information gave out news to the public about the ICRC and organised periodical press releases, press conferences, wireless talks, exhibitions, lectures and cinema shows. The information division opened a translating section, which had on its staff twelve members capable of translating seventeen languages. Special outside help was also obtained for the majority of the Indian and other eastern languages. For this purpose Swiss citizens who had resided in such countries for long periods were requested to help. Another of the functions of the information division was to manage the communication department which maintained the POW mail and telegram system to and from war victims.

#### POST-WAR ACTIVITIES

When World War II ended in 1945, both in Europe and in the Far East, the ICRC found its hands full not only with the gigantic task of repatriating PsOW, but also with the far bigger problem of looking after the millions of displaced persons, who as a result of the war had to flee from their homes. Together with the League of the Red Cross Societies, the ICRC formed an international society for their relief until such time as the United Nations Relief and Rehabilitation Administration was able to take over these functions in respect of the displaced persons.

As a result of the experience gained throughout the course of the war, the ICRC found many gaps in the existing conventions. Moreover, it felt the urgent need of an international convention for the protection of civilian war victims on the same lines as the Geneva Convention of 1929, in respect of the PsOW. The International committee, therefore, lost no time in revising the existing conventions and drawing up new ones. Four conventions were thus drawn up :—

- (i) Convention for the relief of sick and wounded of the armed forces in the field.
- (ii) Convention for the relief of sick and wounded of the armed forces at sea.
- (iii) Convention relative to the treatment of POW.
- (iv) Convention for the protection of civilians in war time.

These four conventions were put up to the Red Cross Conference in 1946, where they were revised. They were again placed before the conference of government experts in 1947, and later before the International Red Cross Conference in 1948. Profiting by these various conferences, the International committee advised the Swiss Federal Council to invite governmental delegations to meet in

April 1949, to consider these revised conventions. As a result of their deliberations the texts of the four conventions mentioned above were drawn up and signed.

#### THE LEAGUE OF THE RED CROSS SOCIETIES

From the above account it will be appreciated that the ICRC, as its name implies, concerns itself chiefly with the international aspect of the relief and protection of war victims, that is to say, it acts as a neutral intermediary between belligerents and organises the despatch of relief parcels to the unfortunate victims. The League of Red Cross Societies, on the other hand, is a free association of all National Red Cross Societies in the world for mutual advantage. It had its headquarters in Paris up to the outbreak of World War II, when it moved to Geneva for closer collaboration with the ICRC. Its organisation is distinct from that of the international committee, but the two bodies work in very close collaboration.

#### NATIONAL RED CROSS SOCIETIES

National Red Cross societies, which have been established in almost every country in the world, concern themselves chiefly during war time with the care of the wounded and sick of their own Armies and the relief of POW of their own nationality. They are, however, enjoined by the Geneva Convention to care for all sick and wounded in their hands without regard to nationality.

#### THE INTERNATIONAL RED CROSS CONFERENCE

The International Red Cross Conference meets once every four years in various parts of the world and is attended by delegates from the ICRC, the League of the Red Cross Societies, the National Red Cross Societies and the states signatory to the Geneva Conventions. It is the supreme body for the control and organisation of the Red Cross movement. The last International Red Cross Conference was held at Stockholm in 1948<sup>1</sup>.

<sup>1</sup> H/6/18/H(M)



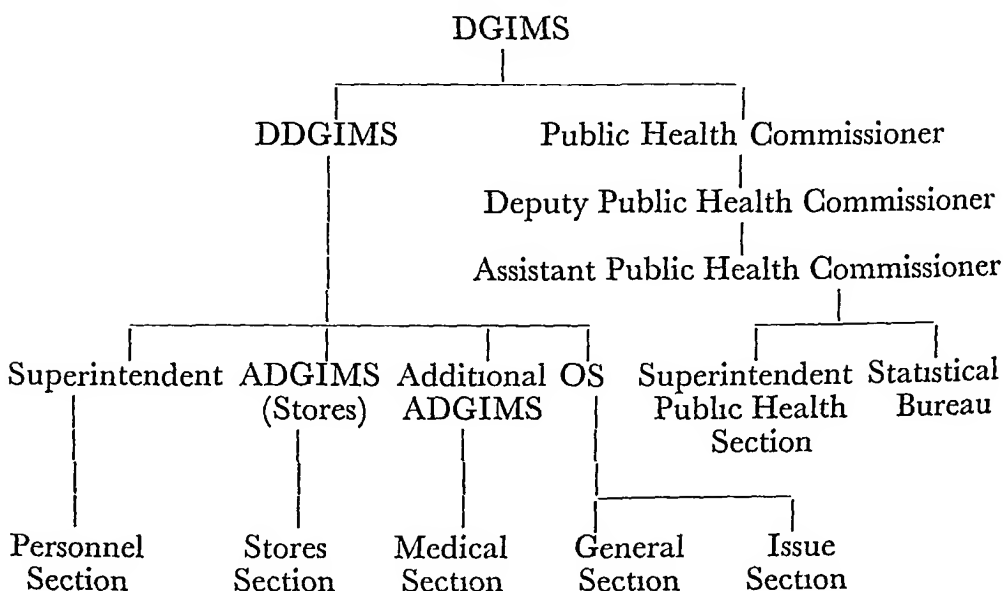
## APPENDIX IX

### The Expansion of the Office of the DGIMS

Before the outbreak of war the office of the DGIMS included the following sections :—<sup>1</sup>

- (i) *Personnel section*, dealing with all service matters relating to the IMS, the IMD and the Medical Research Department;
- (ii) *Medical section*, dealing with all questions referred to the DGIMS in his capacity as medical adviser to the Government of India;
- (iii) *Stores section*, responsible for the administration of the medical stores depots and the work relating to the supply of medical stores to the Army and civil hospitals;
- (iv) *Public Health section*, dealing with all public health matters referred to the Public Health Commissioner with the Government of India ; and
- (v) *General section (including cash and issue branch)*, responsible for all matters relating to the office administration, recruitment, appointments, promotions, etc., of the civilian officers and staff, cash accounts, control over expenditure, budget and general arrangements.

The office layout on 1 April 1939 was as follows :—



The remaining establishment included two assistants-in-charge, ten assistants, ten clerks II division, nineteen clerks III division, one non-medical statistician, one draftsman, four stenographers, two record sorters, four daftries, two jemadars, two dafadars and eighteen peons.

<sup>1</sup> H/5/12/H(M)

The advent of war led to an immediate expansion of the activities of this office owing to the increased requirements of the military for medical personnel and stores. In September 1939, to cope with the increase of work, the personnel section was divided into two branches, one for the IMS and the other for the IMD. As work progressed the staff of these branches was further strengthened in December 1939, and in July/August 1940. Towards the end of the year 1940, a separate recruitment section was constituted, which was expanded and reorganised from time to time. A separate Nursing section was also formed in August 1941.

With effect from 1 January 1944, the IMS branch was renamed personnel section I and a new section designated personnel section II was constituted to deal with the work relating to demobilisation, reconstruction and resettlement.

With the formation of the IAMC and the transfer of records relating to IMD in military employ to the Medical Directorate, the staff dealing with this work was transferred to the Medical Directorate. The remaining staff of this section was attached to the Record Branch. On 1 January 1944, this staff was transferred to personnel section II and later to personnel section I which was reorganised in August 1945.

In January 1941, the office of the DGIMS took over the organisation of the various schemes relating to ARP medical work and the supply of medical stores and equipment for ARP casualty services all over India. The ARP section was accordingly formed in December 1941.

A post of officer on special duty (blood transfusion) was created in October 1942 for the purpose of co-ordinating provincial blood transfusion services.

The staff of the General section was increased from time to time. A separate Cash Branch was formed in April 1943.

The only other section, besides the medical section, where there had been no increase in staff up to the end of 1942, was the public health section. Some of the other problems arising from the war which added to the normal work of the section and consequently necessitated increases in the staff from time to time were: the establishment of the blood bank at the All India Institute of Hygiene and Public Health, of an organisation for dealing with population movements in Assam valley, health problems in connection with refugees from Burma, etc., the creation of increased facilities for the training of military personnel at the Malaria Institute, India, Delhi, the arrangements for the training of Chinese students in public health subjects. Work in the statistical bureau and in connection with the medical and public health reconstruction also involved an increase of staff.

One of the problems arising out of the war requiring urgent attention was the incidence of blindness among the troops and the civil population. At a conference of provincial AMOs held in August 1942, it was decided to organise a national society for the blind and to make a survey of blindness in India. On 14 January 1943, Sir Clutha Mackenzie was appointed as officer on special duty to implement the above decision. The headquarters of this staff were transferred to Dehra Dun on 1 September 1943.

Early in 1943, it was also decided to collect material for an official medical history of the war and the various sections were required to prepare a brief account of their activities for this purpose from month to month. The work of editing this material was entrusted to the DADsGIMS (recruitment) and (ARP).

By April 1946, the establishment of the office had increased to 45 officers, 8 superintendents, 15 assistants-in-charge, 128 assistants, 14 clerks II division, 206 clerks 'B' grade, 3 computers, 3 draftsmen, 2 assistant chemists and 23 stenographers. The officer appointments were as follows :—

I *Permanent.*

DGIMS.

Public Health Commissioner.

DDGIMS.

Deputy Public Health Commissioner.

Assistant Public Health Commissioner

OS (General).

II. *Additional temporary posts sanctioned after 1 April 1939.*

<i>Designation of the post</i>	<i>Date of sanction</i>
(i) <i>Personnel.</i>	
Additional DDGIMS (personnel)	8 June 1940
DADGIMS (personnel)	15 November 1941
OS (personnel)	15 November 1941
(ii) <i>Records.</i>	
DADGIMS (records)	14 December 1945
(iii) <i>Recruitment</i>	
ADGIMS (women's branch)	. 13 February 1943
(iv) <i>Nursing.</i>	
Chief nursing superintendent .	. 1 April 1946
(v) <i>Medical.</i>	
Associate consultant architect (medical institutions)	6 March 1943
Officer on special duty (blindness)	14 January 1943
Officer on special duty (blood transfusion)	29 October 1942
DADGIMS (medical)	. 23 February 1946
(vi) <i>Resettlement.</i>	
DDGIMS (resettlement)	. 27 March 1946
ADGIMS (resettlement)	. The post of ADGIMS (Personnel) which was

*Designation of the post**Date of sanction*

	sanctioned on 8 January 1944 was converted into this appointment
Additional ADGIMS (resettlement)	29 August 1945
DADGIMS (resettlement)	27 March 1946
Officer supervisor (resettlement)	27 March 1946
Officer on special duty (resettlement)	The post of officer on special duty recruitment was converted into that of officer on special duty (resettlement)
(vii) <i>Planning and Development</i>	
Additional DDGIMS (social insurance)	3 November 1945
Officer on special duty (planning and development)	22 March 1946
Officer on special duty (medical reconstruction)	20 January 1944
(viii) <i>Public Health Section</i>	
Additional public health commissioner	30 December 1943
Additional deputy public health commissioner (epedemic and communicable diseases)	14 February 1946
Additional deputy public health commissioner (venereal diseases)	14 February 1946
Additional deputy public health commissioner (publications)	14 February 1946
Additional deputy public health commissioner (quarantine)	2 May 1945
Nutrition officer	14 February 1946
Maternity and child welfare officer I	14 February 1946
Maternity and child welfare officer II	14 February 1946
Officer on special duty (industrial hygiene)	14 February 1946
Officer on special duty (publications)	14 February 1946
OS (public health)—I	16 March 1946
OS (public health)—II	6 March 1946
Medical statistician	16 June 1944
Non medical statistician	16 June 1944
(ix) <i>Medical Stores</i>	
Additional DDGIMS (stores)	11 June 1941
Chief advisory chemist	30 April 1940
OS (stores I)	16 August 1941
OS (stores II)	13 February 1941
Progress officer	11 December 1944

## APPENDIX X

### The Organisation of Commands During World War II

In September 1939, India was divided into three Commands, twelve districts and thirty-five Brigade Areas and Brigades, as follows :—<sup>1</sup>

#### *Northern Command.*

##### *Peshawar District*

Landikotal Brigade  
Peshawar Brigade  
Nowshera Brigade  
1st (Risalpur) Cavalry Brigade

##### *Kohat District.*

Kohat Brigade  
Thal Brigade

##### *Rawalpindi District :*

1st (Abbottabad) Infantry Brigade.  
2nd (Rawalpindi) Infantry Brigade  
3rd (Jhelum) Infantry Brigade

##### *Lahore District .*

Sialkot Brigade Area  
Ferozepore Brigade Area  
Jullundur Brigade Area  
Lahore Brigade Area  
Ambala Brigade Area

##### *Waziristan District :*

Razmak Brigade  
Bannu Brigade  
Wana Brigade

#### *Eastern Command .*

##### *Meerut District*

9th (Jhansi) Infantry Brigade  
7th (Dehra Dun) Infantry Brigade  
8th (Bareilly) Infantry Brigade  
3rd (Meerut) Cavalry Brigade

##### *Lucknow District .*

6th (Lucknow) Infantry Brigade  
Allahabad Brigade Area

##### *Delhi Independent Brigade Area.*

##### *Presidency and Assam District*

Eastern Bengal Brigade Areas

<sup>1</sup> A/3/43/H(M) AI(I) 62/1937, Army List 1939.

*Southern Command**Deccan District*

- 10th (Jubbulpore) Infantry Brigade
- 11th (Ahmednagar) Infantry Brigade
- 4th (Secunderabad) Cavalry Brigade
- 12th (Secunderabad) Infantry Brigade

*Bombay District*

Mhow Brigade Area

*Madras District**Poona Independent Brigade Area**Western Independent District*

- Quetta Brigade
- Khojak Brigade
- Zhob Brigade
- Sind Brigade Area

Towards the beginning of 1942, it was considered that the organisation of India into three commands and Western Independent District, while suitable under semi-peace conditions, would prove unsuitable now that India was faced with the possibility of active operations on her coasts, her north east frontier and, in certain circumstances, on her north-west frontier as well. The threat from the east had raised new problems affecting defence against external aggression, internal security, civil defence, control of population and the denial of plant and material to hostile forces. Even the possibility of a threat to India from the west could not be excluded. Plans had to be made in advance to meet these eventualities. Accordingly the three existing Northern, Eastern and Southern Commands and the Western Independent District were reorganised into three Armies more fitted for operational requirements, and a new command, the Central Command, was created which relieved the operational commands of a large internal security area and took over the considerable task of administration and training. A start with this reorganisation was made on 21 April 1942, and to avoid dislocation the full programme was carried out by stages and finally completed on 15 May 1942. Early in June 1942, on the representation of the Central Command, Sind District was transferred to the North Western Army.<sup>2</sup>

In June 1942, the GOC-in C, Eastern Army represented that after careful consideration and consultation with two corps commanders and the administrative services, he had come to the conclusion that a reorganisation of the rearward areas of the Eastern Army was absolutely essential for the efficient prosecution of the war in north east India. He pointed out that the distances to be covered in that part of India were very great and corps operational areas were so extensive that their commanders could not be burdened with the administration of rear areas. This work of administration was growing daily with every increase in the already large number of

<sup>2</sup> F/2131/H(M)

administrative units in the back area. A further reason for the desired reorganisation was to keep the corps and divisions mobile in order to facilitate moves from area to area without upsetting the control of the administration of all the static units in the Army area. The solution to this problem lay in the adoption of a L of C organisation in the Eastern Army.<sup>3</sup> Consequently the whole of the back area in the Eastern Army was divided, with effect from 11 July 1942, into two main L of C areas plus a coastal area, *viz.*, (a) Assam L of C Area under the IV Corps, (b) Eastern Army L of C Area under the Eastern Army and (c) Coastal Area under the command of XV Corps. Each of the two main L of C Areas was further divided into sub-areas. At the same time it was decided that for reasons of security areas and sub-areas would not be referred to by their place names but that numbers would be allotted to them. The following new designations were accordingly sanctioned on 13 August 1942 :—

<i>Existing designation</i>	<i>New Designation</i>
Assam Area . . .	202 Area
Dibrugarh Sub Area . . .	252 Sub Area
Manipur Base Sub Area . . .	253 Sub Area
Shillong Sub Area . . .	251 Sub Area
Eastern Army L of C Area . . .	101 L of C Area
Ranchi L of C Sub Area . . .	151 L of C Sub Area
Dinapore L of C Sub Area . . .	152 L of C Sub Area
Parbatipur L of C Sub Area . . .	153 L of C Sub Area
Coastal Area . . .	201 Area
Calcutta Defended Port Area . . .	Calcutta Defended Port Area

Towards the end of October 1942, the projected switch over to the offensive necessitated further reorganisation in the Eastern Army L of C system. Accordingly Headquarters L of C Sub Area, Kalewa, was converted into Headquarters 254 Sub Area with effect from 19 December 1942, and a new formation Headquarters 256 Sub Area south of Kanglatongbi on the Imphal Road, to include advance bases at Morang on the Imphal-Tiddim Road and at Palel on the Imphal-Sittaung Road, was created.

In the beginning of January 1943, it became abundantly clear that the Eastern Army had to undergo yet another reorganisation to meet the forward trend of operations and to relieve the forward commanders of as much responsibility for their extending 'tail' as possible. This question of the future organisation to be adopted for the Eastern Army and the formation of Burma Army Headquarters to undertake operations in Burma was under consideration and discussion with the GOC-in-C, Eastern Army. The matter was discussed in conference during the C-in-C's visit on 10 January 1943, and as a result 202 Area was separated from the IV Corps. It was then decided that the L of C in the Eastern Army should be divided into three L of C areas, corresponding with the provinces of Bengal, Bihar and

<sup>3</sup> F/2095/H(M).

Orissa and Assam It was felt that a Burma Army would have to be formed eventually and that these proposals were the first step in that direction These were further designed to simplify the problem of leaving behind an organisation to control what was to become a large L of C command Accordingly the following reorganisation was sanctioned with effect from 1 March 1943 —<sup>4</sup>

<i>Headquarters</i>	<i>Location</i>
101 L of C Area	Patna
151 L of C Sub Area	Ranchi
152 L of C Sub Area	Dinapore
153 L of C Sub Area	Cuttack
202 L of C Area (Assam)	Gauhati
251 L of C Sub Area	Shillong
252 L of C Sub Area	Dibrugarh
253 L of C Sub Area	Manipur Road
303 L of C Area	Calcutta
351 L of C Sub Area (late 201 Area)	Kharagpur
352 L of C Sub Area (late Calcutta Defended Port Area)	Calcutta
353 L of C Sub Area (late 153 Sub Area)	Jalpaiguri
354 L of C Sub Area	Chittagong
Headquarters 254 and 256 Sub Area remained as before	

Changes of the nature indicated above were not confined to the Eastern Army Similar changes also took place in the Southern Army On 15 September 1941, Deccan District was converted into Deccan (Independent) Area The division of India in April 1942, into three Armies and Central Command had marked the conversion of Poona (Independent) Area into Poona Area under Bombay District On the introduction of a coastal defence plan the following port areas were created as defended port areas Bombay, Madras, Cochin and Vizagapatam

In reorganising the Southern Command on an operational basis the principle that was adopted was to relieve the operational headquarters of all peace administration which, perforce, had had to be carried on in the operational areas as heretofore For this purpose Advance and Rear Headquarters of the Southern Army were created at Bangalore and Poona respectively

The Southern Army was divided, in July 1942, into the following districts and areas <sup>5</sup>

*Bombay District*

Bombay Defended Port Area  
Poona Area  
Deolali Area

*Madras District*

Bangalore Area  
Madras Defended Port Area  
Cochin Defended Port Area

<sup>4</sup> F/2095/H(M)

<sup>5</sup> F/2021/H(M)



Trichinopoly Area  
 Coimbatore Area  
*Deccan (Independent) Area*  
 Vizagapatam Defended Port Area

In October 1942, it was decided to introduce L of C areas in Southern Army and a start was made with effect from 1 November 1942, with the following :—

<i>Existing designation</i>	<i>New designation</i>
Madras District .	105 L of C Area
Bangalore Area .	160 L of C Sub Area
Cochin Defended Port Area .	161 L of C Sub Area
Trichinopoly Area .	162 L of C Sub Area
Coimbatore Area .	163 L of C Sub Area
Deccan (Independent) Area .	106 L of C Area

In December 1942, it was felt that the interests of security would be better served if the territorial references in the titles of areas were abandoned in all cases. Consequently, new designations, as under, were given to the remaining areas in the Southern Army with effect from 22 February 1943 :—

<i>Old designation</i>	<i>New designation</i>
<i>Bombay District</i> .	107 L of C Area
Madras Defended Port Area .	164 L of C Sub Area
Deolali Area . . .	165 L of C Sub Area
Poona Area . . .	166 L of C Sub Area
Bombay Defended Port Area .	167 L of C Sub Area
Vizagapatam Defended Port Area .	168 L of C Sub Area

Further, two new areas were created with effect from 15 March 1943, and were numbered as 169 and 170 L of C Sub Areas.

At the same time a reorganisation within the Central Command was also carried out with effect from 1 December 1942, and was designed to result in the saving of one district staff and to simplify liaison particularly with the civil administration. The Central Command was then organised as under :—<sup>6</sup>

- (1) *Lahore District* :  
 Jullundur Area  
 Lahore Area  
 Ambala Area  
 Ferozepore Area  
 Delhi Area
- (11) *Lucknow District* :  
 Dehra Dun Area  
 Meerut Area  
 Bareilly Area

Lucknow Area  
Allahabad Area

(iii) *Jubbulpore (Independent) Area*

(iv) *Mhow (Independent) Area*

With the decision to form SEAC for the conduct of operations in the east and to use the India Command as a base for this purpose, it became necessary, towards the middle of 1943, to create a separate Army headquarters for the conduct of operations on the north eastern frontier of India. The Eastern Army was accordingly split up into an operational army known as the Fourteenth Army and Eastern Command with effect from 15 October 1943.<sup>7</sup> The areas of responsibility of these two formations were initially fixed as follows —

Eastern Command— covered the Provinces of Bihar, Orissa, and Bengal (less the area east and south east of the Meghna river) It comprised—

101 L of C Area—as then constituted

303 L of C Area—as then constituted less 354 L of C Sub Area That portion of 354 L of C Sub Area which lay west of the Assam Bengal boundary, and the Meghna river (and included Mymensingh and Dacca) was included in 353 L of C Sub Area

Fourteenth Army— covered the Provinces of Assam and that portion of Bengal separated from the area of the Eastern Command It comprised —

202 L of C Area

354 L of C Sub Area less the portion transferred to 353 L of C Sub Area

The two formations consisted of—

*Eastern Command*

101 L of C Area

151 L of C Sub Area

152 L of C Sub Area

154 L of C Sub Area

303 L of C Area

351 L of C Sub Area

352 L of C Sub Area

353 L of C Sub Area

*Fourteenth Army*

202 L of C Area

251 L of C Sub Area

252 L of C Sub Area

353 L of C Sub Area

354 L of C Sub Area

Thus, on 15 October 1943, India had been divided into three Armies and two Commands, *i.e.*, North-Western, Southern and Fourteenth Armies and Central and Eastern Commands<sup>7</sup>

<sup>7</sup> F/2379/H(M)

On 23 November 1943, the GOC-in-C Central Command represented that a reorganisation of the command had become necessary to meet recent changes. Not only had the number of troops and installations in peace stations increased but the location of formations, both operational and training, in the jungle areas, ill served by road and rail and lacking most amenities, had also added very considerably to the administrative burden of the command and was not conducive to administrative efficiency. Orders were accordingly issued on 18 February 1944, for the reorganisation of the Central Command as under :—<sup>8</sup>

<i>Old</i>	<i>New</i>
<i>Lahore District</i>	<i>Lahore District</i>
Lahore Area	Lahore Area
Ambala Area	Ambala Area
Jullundur Area	Jullundur Area
Ferozepore Area	Ferozepore Area
Sialkot Area	Sialkot Area
Delhi Area	
<i>Lucknow District</i>	<i>Lucknow District</i>
Dehra Dun Area	Dehra Dun Area
Lucknow Area	Lucknow Area
Bareilly Area	Bareilly Area
Allahabad Area	Allahabad Area
Meerut Area	
Jhansi Area	
<i>Jubbulpore (Independent) Area</i>	{ Nagpur District Jubbulpore Area Mhow Area Kamptee Area
Mhow (Independent) Area	
	<i>Delhi District</i>
	Delhi Area
	Meerut Area
	Jhansi Area

Headquarters, Delhi District, Nagpur District and Kamptee Area were formed on 27 February 1944. The two district headquarters assumed control of their respective areas on 14 March 1944, on which date Jubbulpore and Mhow ceased to be independent areas. The eastern states of Chang Bhakar, Korea, Surguja, Jashpur, Udaipur, Raigarh, Sarangarh, Sakti, Patna, Kalahandi, Kankor and Baster, previously in Jubbulpore (Independent) Area, were included in the Eastern Command.<sup>8</sup>

By February 1944, the role of the Southern Army had changed from a tactical to largely administrative one. A reorganisation of the L of C layout was accordingly carried out with effect from 1 May 1944, which involved the following changes.<sup>9</sup>

<sup>8</sup> F/2127/H(M).

<sup>9</sup> F/2021/H(M)

<i>Existing</i>	<i>Future</i>	<i>Changes</i>
160 <i>L of C Area</i>	105 <i>L of C Area</i> (Headquarters Madras)	
160 <i>L of C Sub Area</i>		Became 109 <i>L of C Area</i>
161 <i>L of C Sub Area</i>	161 <i>L of C Sub Area</i>	
162 <i>L of C Sub Area</i>	162 <i>L of C Sub Area</i>	
163 <i>L of C Sub Area</i>	163 <i>L of C Sub Area</i>	
164 <i>L of C Sub Area</i>	164 <i>L of C Sub Area</i>	
	168 <i>L of C Sub Area</i>	From 106 <i>L of C Area</i>
106 <i>L of C Area</i>		Became 172 <i>L of C Sub Area</i>
168 <i>L of C Sub Area</i>		To 105 <i>L of C Area</i>
108 <i>L of C Area</i>	108 <i>L of C Area</i>	
	165 <i>L of C Sub Area</i>	From 107 <i>L of C Area</i>
	167 <i>L of C Sub Area</i> (Headquarters Bombay)	Revived
107 <i>L of C Area</i>		Ceased to exist
165 <i>L of C Sub Area</i>		To 108 <i>L of C Area</i>
166 <i>L of C Sub Area</i>		To 110 <i>L of C Area</i>
169 <i>L of C Sub Area</i>		Abolished
170 <i>L of C Sub Area</i>		To 110 <i>L of C Area</i>
	109 <i>L of C Area</i> (Headquarters Bangalore)	Late 160 <i>L of C Sub Area</i>
	110 <i>L of C Area</i> (Headquarters Poona)	
	166 <i>L of C Sub Area</i> 170 <i>L of C Sub Area</i>	} From 107 <i>L of C Area</i>
	172 <i>L of C Sub Area</i> (Headquarters Secunderabad)	
		Late 106 <i>L of C Area</i>

## APPENDIX XI

### The Early History of the Indian Medical Service

#### MEDICAL OFFICERS IN THE SERVICE OF THE COMPANY

To trace the origin of the medical services in India we must go back to the days of the East India Company. Their first foothold in India was Surat, where they built a factory in January 1613. The first medical officers in the employment of the company were surgeons on board their ships. But later, when factories were established on the Coromandel Coast, and in Bengal in the seventeenth century, a medical officer, when available, was allowed for every permanent factory. However, it was not till 1745, in the course of Anglo-French wars, that medical officers were appointed to accompany the troops in the field.

#### MEDICAL SERVICES OF THE PRESIDENCIES

On 1 January 1764, the medical officers, then serving in the Bengal Presidency were grouped into a regular medical establishment called the Bengal Medical Service. The ranks then in existence were head surgeons, surgeons and surgeons' mates. Surgeons' mates were again divided into hospital mates and regimental mates. The Madras Medical Service was constituted in 1767 and the Bombay Medical Service in 1779.<sup>1</sup>

A medical board, consisting of three members, was established in Madras early in 1786. Similar boards were also established in Bengal in 1786 and in Bombay in 1787, the latter consisting of two members only at that time. It was later increased to three members in 1789. The first member of the board was given the title of physician general and the second that of chief surgeon. The third member was head surgeon of the hospital at headquarters. The various grades in the service in Madras at that time were (i) hospital board, (ii) head surgeon, (iii) first surgeon, (iv) surgeon, (v) surgeon assistant or hospital mate. The first surgeon held an appointment rather than a rank and the title was abolished in May 1787. In 1796, the board was reduced to two members, the physician general and the chief surgeon.

At that time relative ranks assigned to the medical service in Madras were —

Physician general (first member of the board)	Brigadier general
Chief surgeon (second member of the board)	Colonel
Head surgeon of hospital in a garrison of 8,000 men	Lieut -colonel
Head surgeon of other hospitals	Major

<sup>1</sup> McDonald, D (1950) *Surgeons Two and a Barber*, 65, London William Heinemann

Surgeon to regiment  
 Assistant surgeon (hospital mate)  
 Assistant surgeon (regimental mate)

Captain  
 Lieutenant  
 Ensign

#### BENGAL MEDICAL SERVICE

In the early days of the Bengal Medical Service doctors in some instances held warrants as assistant surgeons and also commissions as combatant officers. At the time of promotion as captain or surgeon they had to make a choice between the two branches. Normally assistant surgeons held warrants until October 1788, when Lord Cornwallis granted them military commissions as officers and fixed the establishment of surgeons at twenty-eight.

No appreciable change appears to have been made till 1824, when in Bengal the following scale of ranks was authorised

The members of the medical board	Lieut colonels
Superintending surgeons	Majors
Surgeons	Captains
Assistant surgeons	Lieutenants

But later in 1842, in the Bengal Army a further change was effected making the members of the medical board rank as brigadier generals, and the designations first, second and third members were abolished and the following substituted —

Physician general	for first member
Surgeon general	for second member
Inspector general of hospitals	for third member

The title of senior surgeon was conferred on all surgeons of thirty years' service. They were given the relative rank of major.

In November 1857, the appointments of directors-general were created in the three presidencies and medical boards were abolished. The director-general of the Bengal Service was to be assisted by two inspector generals, one civil and the other military.

The title of director-general was changed to principal inspector general in 1862. This was abolished in 1866. In 1869, the second post of inspector general in Bengal was also abolished, only one inspector general being left as head of the Bengal Medical Service. In 1873 this title was changed to surgeon general, while in 1880 it became surgeon general and sanitary commissioner with the Government of India. In 1895 the title of director-general was again introduced and the officer holding the post was recognised as head of the whole IMS in the three presidencies.

#### APPOINTMENTS WITH THE MEDICAL DEPARTMENT

The number of appointments in the medical department in 1836 was as follows —

	<i>Bengal</i>	<i>Madras</i>	<i>Bombay</i>	<i>Total</i>
Medical board	3	3	3	9
Superintending surgeons	10	9	4	23
Surgeons	107	61	33	201
Assistant surgeons	243	160	109	512
	363	233	149	745

The applicants for appointment as surgeons on board ships were examined before employment. In 1773 the company established a board in London to examine candidates for appointments as assistant surgeons. In 1775 the necessity for examining men locally appointed in India became apparent. The Madras Government directed two surgeons to recommend persons qualified to be surgeon's assistants. Later, senior surgeons in Madras and Bengal acted as examiners for their presidencies. In 1784 the board in Bengal consisted of the surgeon general and two or more surgeons nominated by him. Indians were not appointed in the medical service until 1855, when the first competitive examination for the medical service was held in June 1855, and the list of successful candidates was headed by an Indian, Doctor S.C. Chuckerbutty.

With the assumption of direct administration of India by the Crown, changes began to be made frequently in the constitution of the medical services in India, the title and emoluments of the officers, and the relationship between the British service and the Indian service. Initially the three presidencies had their separate cadres, though in essentials their constitution was uniform. On 1 April 1895, the three separate Presidential Armies were abolished and four commands, the Punjab, Bengal, Madras and Bombay, were formed. In each of the four commands a PMO of the rank of surgeon major-general was appointed. In April 1896, the three presidency medical services were also combined into one Indian Medical Service. But this combination did not affect the existing incumbents in whose case, for purposes of promotion, three separate cadres were maintained. In 1906, however, the names of all officers of the three presidency cadres were entered in one list, according to seniority. But in 1907 the four commands were abolished and the whole Army was reorganised into ten divisions. The PMOs of three divisions were granted the rank of surgeon general. At the same time the office of PMO His Majesty's Forces in India came into being. In 1913, he was designated DMS in India. The office of the PMO and later of the DMS was held by officers of the British Service.

The grades before 1857 have been mentioned earlier. On 1 February 1859, a Royal Warrant instituted modifications in the titles and ranks of the medical officers. These were as follows :—

<i>New Title</i>	<i>In place of</i>	<i>Relative rank</i>
Inspector General of hospitals	Director General of the medical depart- ment	Major-general over three years' service, brigadier general under three years' service

<i>New Title</i>	<i>In place of</i>	<i>Relative rank</i>
Deputy Inspector General of hospitals first class	Inspector General	Colonel
Deputy Inspector General of hospitals second class	Superintending surgeon	Lieut colonel
Surgeon major	Senior surgeon	Lieut -colonel junior of the rank
Surgeon		Major
Assitant surgeon		Captain above six years service, lieutenant under six years service

In 1864 officers of the IMS also received a Royal Commission Thenceforth promotion of assistant surgeons was regulated on the basis of length of service and not on succession by vacancies Promotion to surgeon was authorised on completion of twelve years service

#### COMMISSION OF 1865

The IMS warrant of 1859, mentioned earlier, which introduced many important changes in the constitution of the IMS, remained in force for a very short time The competition for joining the IMS was soon after closed for four and a half years, the last admissions being made on 1 October 1860 For the next four years amalgamation of the IMS with the Army Medical Department (AMD) was under consideration The proposals made at that time were not so much for the amalgamation of the two services as for the absorption of the IMS into the AMD These were finally negatived by the IMS warrant of 1864, as the motion to introduce these changes was defeated in the House of Commons by two votes After the issue of the warrant the competitive examinations to join the IMS were re started

The service did not generally attract suitable youngmen Hence a commission was appointed in 1865 to report on the means for improving recruitment and to revise the terms and grades of the service The recommendations of the commission were included in the Royal Warrant of 10 May 1873, which made further modifications in the grades and relative ranks of the medical officers The titles, inspector general and deputy inspector general of hospitals, as prescribed in 1859, were changed to surgeon general and deputy surgeon general and the rank of assistant surgeon was abolished Other ranks remained generally the same as before except that surgeon major, if below twenty years service, carried the relative rank of major, and surgeon, who was granted the relative rank of major in 1859, was then to rank as captain after six years service and lieutenant below it Further minor changes were introduced from time to time On 16 November 1880, a new grade of brigadier surgeon with the relative rank of lieut -colonel was introduced All surgeon majors of twenty years service were also granted the relative rank of lieut colonel The distinction 'junior of rank' was abolished



force services. The uncertainty of the future of the IMS, as a result of the constitutional changes in the Government of India, was another factor which discouraged recruitment.

Fourthly, there was the IMD, the existence of which in the form in which it was then organised, constituted a separate problem. In the course of time members of the IMD were in possession of qualifications which were hardly compatible with a subordinate position. Many members of the assistant surgeons' branch had British qualifications. The problem in this case was to decide whether or not an adequate career could be found for these men on the military side, and, if so, to what extent IMS and RAMC officers could be replaced by them.

#### THE COMMISSION OF 1879

The problem of the organisation in India of both the Indian service (the IMS) and the British service was dealt with by the special commission on the 'Organisation and Expenditure of the Army in India' of 1879. According to the commission the existing double system of medical administration in India, under which two distinct bodies were working together in the same field was extravagant and had numerous and very grave defects. The commission recommended the formation of one medical corps for India to take the place of the two medical services. The commission held that although the service was to be divided into two distinct parts, civil and military, its officers should remain military officers—those in civil service being only lent to the civil department and liable to be called up for military duty in the event of their services being required.

The commission also proposed the abolition of direct admission into the IMS and suggested that all army medical officers should first enter the British service from whence the required number could be annually drafted into the proposed Indian medical corps.

#### WAR OFFICE PROPOSALS

While this commission was still prosecuting its enquiries, the War Office appointed a committee to enquire into the causes of the unpopularity of the AMD. This committee found that the department had failed to attract suitable candidates on account of its failure to offer pecuniary advantages comparable with those offered by many rival employments, among which the IMS held a high place. The committee, therefore, recommended higher pay and pensions and the creation of a new rank, ordinarily executive but at times administrative, *viz*, that of brigade surgeon. It further proposed the rank of captain for a surgeon on first appointment instead of after six years service.

The Secretary of State for India refused to consent to any proposal which would involve an increase in expenditure. The Secretary of State for War admitted the force of this objection but went on to

say that if the Government of India were prepared to provide medical officers of the IMS in sufficient numbers and of adequate professional qualifications for attendance on British troops in India, he would be satisfied. The Secretary of State for India, therefore, asked the Government of India to give full consideration to the question of relieving the War Office altogether of the duty of providing for the medical needs of the British troops serving in India.

#### THE CRAWFORD-CUNNINGHAM SCHEME 1881

The Government of India had not approved of the scheme of amalgamation proposed by the commission of 1879, though they were satisfied that the required improvement, both economically and administratively, was to be found only in some measure of unification. The two heads of the medical services in India, Dr Crawford, the Surgeon General of His Majesty's Force (a member of the AMD), and Dr Cunningham, the Surgeon General to the Government of India (a member of the IMS), were asked to prepare a memorandum for the formation of one medical service for India, with complete authority over employment, distribution and remuneration of its members vested in the Government of India.

These two officers prepared the joint memorandum of 12 August 1881, which recommended that there should be a single medical service for the Indian and British Armies, the officers serving in India forming a local branch of this Imperial service, which should be designated the Royal Medical Service.

#### COUNTER PROPOSALS BY THE WAR OFFICE

Meanwhile, the conditions of service in the AMD had been greatly improved by the Royal Warrant of 27 November 1879. The War Office could not, therefore, accept the new scheme as a whole, although it regarded favourably the suggested amalgamation of the civil and military services, as throwing more prizes in the way of the candidates and as putting a stop to the competition between the two services which was inevitable at the entrance examination. They suggested that when a vacancy occurred in the civil medical service of India, to which a junior IMS officer had not already a guaranteed right of succession, an officer of the AMD should be appointed to it. One department would thus, gradually and without violent change, take the place of the other. The War Office proposals were not acceptable to the Government of India.

#### APPLICATION OF ROYAL WARRANT OF 1879 IN INDIA

The Government of India were compelled to extend the provisions of the Royal Warrant of 1879 to India, apart from the financial clauses. The result was that AMD officers serving in India received no pecuniary benefits. In 1880 it was found necessary to extend these

concessions to the IMS also. The rank of brigadier surgeon was introduced and the rank of captain was given to the newly appointed surgeons from the date of commission. Ten years later, in 1890, the rank of lieutenant was re-introduced in both the services for officers with service below three years.

By the orders passed on 13 January 1880, the IMS lost six administrative appointments. The service made a representation to the Secretary of State complaining of its subordination to the AMD, the comparative disadvantage in the matter of pensions, the lack of initial rank of captain on appointment, and the insistence on examination before promotion to surgeon major. These grievances were remedied in 1881, when the pension in the Indian service was made higher than that in AMD. The latter naturally resented this disparity and a number of representations were made on its behalf, including those by the British Medical Association (BMA) in 1892 and 1893. The BMA protested against the non-application of the financial provisions of the Royal Warrant of 1879, (later superseded by that of 1891) to service in India. But the Secretary of State for India could not admit the plea on the ground of the additional expense involved, which India could not bear, and the fact that before its publication it was made clear that the warrant would not apply to India. In March 1893, the BMA contested the right of the Government of India to discriminate in the matter of application of the Royal Warrant in the case of medical officers, for according to it the Royal Warrant had legal validity in all parts of the Queen's possessions. Finally, the BMA warned that "the overstrained and parsimonious conditions of Indian service are already injuring professional efficiency in the medical staff not only through straitened means and ill health, but through the officers losing heart ; this will speedily react on the quality of candidates for the service". Again, in July 1893, it submitted a lengthy memorandum ; but the Secretary of State for India remained unmoved.

In 1901 the Secretary of State for War addressed India Office, stating that the inadequacy of the remuneration offered to junior ranks of the Army Medical Staff<sup>3</sup> serving in India in comparison with the rates granted to officers holding similar positions in other branches of the service was creating difficulty in obtaining candidates for the Army Medical Staff. He followed this letter up with another, inviting the India Office to nominate a representative to serve on a committee to consider the general reorganisation of the Army Medical Staff. The Secretary of State for India was not prepared to accept the view that the difficulty was due to the inadequacy of remuneration in India. He favoured a full enquiry into the causes of the deficiency before the Indian revenues were saddled with any portion of the cost of rendering the Army Medical Staff more popular, and was prepared to nominate a representative. A committee was accordingly nominated which produced a scheme of reorganisation in August 1901. In the meantime

<sup>3</sup> AMD was designated as Army Medical Staff on 18 August 1891

the Army Medical Staff had been reorganised and was designated RAMC

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So far as India was concerned, the essential features of this scheme were (i) the addition of 102 officers to the RAMC, 40 of whom were to be added to the Indian establishment, and (ii) a general increase of pay

The proposals meant a total increase of Rs 4,10,000 on account of pay and allowances and Rs 3,24,500 on account of the extra 40 officers. The Government of India, therefore, objected most strongly and regarded the contemplated heavy expenditure as an unjustifiable burden on the Indian revenues

In the meantime, as a result of the recommendations of an inter-departmental committee in the United Kingdom which the Government of India accepted in November 1902, the pay of junior RAMC officers in India was raised and charge allowances to officers commanding BMHs, varying from Rs 60 to Rs 240 per mensem and specialist pay to those entitled to it at Rs 60 per mensem, were authorised. The addition of 40 officers to the RAMC establishment in India was, however, not accepted. Later, (March 1903) increased pay was also granted to lieut-colonels and selected lieut-colonels of the RAMC

These concessions to the RAMC had their inevitable reaction on the IMS. Not only did the officers of the IMS express dissatisfaction but the BMA also took up the cudgels on their behalf. An increase in pay was urged on the grounds of preservation of an equitable balance between the two services, compensation for continuous service in India and the need for attracting higher qualified men. Consequently new scales of pay for the IMS, which compared favourably with the RAMC rates of pay, were announced on 24 October 1903. The increases, however, did not satisfy the BMA, which still thought them to be too low for the reason that service in the IMS was passed continuously in India. The BMA further demanded increase of pay for IMS in civil employ. In due course this was conceded, but not until a further representation had been received from the BMA in January 1904.

#### LORD MORLEY'S PROPOSAL

The IMS was now fairly contented, but in August 1907, the Secretary of State for India (Lord Morley) suggested that the time had come to promote the growth of an independent medical profession by throwing open to the profession in general some of the civil appointments held by the IMS. The Government of India agreed to this on 20 August 1908, but pointed out that one essential restriction on any reduction of the IMS in civil employ was that their number must always be sufficient to meet the medical requirements of the Army, and to this end it was necessary to include a large reserve of officers whose services would be available on the outbreak of war. Further, about one third of the IMS officers in civil employ did not

form part of the real war reserve and a number of posts held by them might slowly and tentatively be surrendered to independent Indian medical practitioners. The Secretary of State replied that he had decided that the time had arrived when no further increase on the civil side of the IMS could be allowed and that an effort should be made to reduce it by generally extending the employment to include civil medical practitioners recruited in India.

The publication of these papers in 1909 marked an immediate falling off in the IMS recruitment. The Government of India was alarmed and consulted provincial governments, which were strongly against the proposed changes. The Secretary of State was again approached with the suggestion that nothing should be done which would decrease the attractiveness of the IMS and that even though the surrender of some civil posts might be unobjectionable from the military point of view such a course would undoubtedly greatly impair the advantages of the service. The Secretary of State (then Lord Crewe) agreed and stated that the question of promoting the growth of an unofficial medical profession in India must be treated as distinct from that of limiting or reducing the civil cadre of the IMS.

In 1911 it was proposed that the IMS should be made a purely civil service and that all military requirements should be entrusted to the RAMC. It was agreed that Indians were entering the IMS in large numbers who could be better employed on the civil side, very few of them being drawn from the so called martial classes. The then DGIMS (Sir Pardey Lukis) took exception to the scheme and pointed out that it would abolish the war reserve and that the Army could not afford to lose the services of well-trained and highly-qualified civil surgeons possessing previous military experience, intimate knowledge of the country, skill as operating surgeons and experience of the administration of large hospitals. Furthermore, the IMS in civil employ had also trained assistant and sub-assistant surgeons who constituted an important part of the personnel of military hospitals. This resulted in the dropping of the proposal.

Meanwhile the service continued to decline in popularity with British medical men and the percentage of successful Indian candidates gradually rose. The Secretary of State for India invited the assistance of the BMA to ascertain the causes of discontent. The latter revealed to the Public Service Commission, which sat in London, in July 1914, that the service was on the verge of a catastrophe and that its officers were advocating what amounted to a boycott of the entrance examination for their own service. The chief grievances were inadequate pay, difficulties in obtaining ordinary and study leave, constant interference by Government with private practice and the unsatisfactory position of the DGIMS in relation to the Government of India and the local governments. Owing to the war, the report of the commission was not published till January 1917.

The commission recommended the institution of two regular civil services, one largely supervisory for the whole of India 'the Indian Civil Medical Service' and the other provincial. IMS officers

admitted to the proposed 'Indian Civil Medical Service' were to be placed at the disposal of the military authorities only if they were not of administrative rank and only in the event of war. As regards pay, a general increase of 12.5 per cent was suggested. No action was, however, taken on this report.

#### AMALGAMATION PROPOSED IN 1918

In June 1918, a deputation of the BMA interviewed the Secretary of State for India and informed him of the perilous condition in which the IMS was likely to find itself as the result of the failure to remedy the grievances of its officers. Amalgamation of the two services was again proposed and it was suggested that there should be a 'Royal Indian Medical Corps' instead of the IMS and the RAMC with increase of pay and compulsory study periods. The Secretary of State, while forwarding the proceedings of this meeting to the Government of India, suggested unification of the two services without specifying which one of the two was to disappear. He, however, laid down the following four guiding principles —

- (i) Provision for the IMS of a career giving plentiful opportunity for the acquiring of professional and scientific knowledge by means of a liberal provision of institutes and research laboratories throughout the country, attachment to these institutions of appointments carrying sufficiently attractive emoluments, and greater facilities for study leave
- (ii) Increase in pay
- (iii) Increase in the rate of Indianisation
- (iv) The future organisation of the medical services in India to provide for military requirements

The immediate result of this was an increase of 33½ per cent in the pay of the IMS.

#### VERNEY LOVETT COMMITTEE

In January 1919, the Government of India appointed another committee under Sir Verney Lovett to examine the question of the reorganisation of the medical services from the standpoint that it was desirable to have a unified medical service for India.

The committee decided that the civil side of the service should not be divorced from the military, and made the following recommendations —

- (i) The formation of an 'Indian Medical Corps' which besides replacing the IMS would also do the work of the RAMC in India
- (ii) This corps should have an ordinary war reserve of officers lent to civil for five years or less, and a special reserve recallable to military duty only on occasions of grave national emergency, and not even then if holding certain residuary appointments

This special reserve was to be partly recruited from civil assistant surgeons and private practitioners.

- (iii) The provincial governments should supplement their contingents of 'Indian Medical Corps' officers with exclusively civil medical officers whom they would themselves appoint.
- (iv) Admission to the corps should be through an examination to be held in England twice a year.
- (v) Transfers from the RAMC should be allowed.
- (vi) Salaries should be increased and more liberal provision should be made for leave.
- (vii) The total number of officers for military duty in peace time should be at three per mille of the total strength of the Army in India *plus* a leave and casualty reserve of 25 per cent. and a study leave reserve of 4 per cent. of the officers required for duty.
- (viii) All officers on attaining the rank of lieutenant-colonel should make their decision between the careers of military administration, professional employment as consultants, and permanent civil employment.

The only alternative to this scheme was the abandonment of all attempts at unification and the formation of a medical corps for the Indian Army only on the lines of the RAMC by the amalgamation of the IMS, the sub-assistant surgeons of the IMD, and the rank and file of the Army Hospital Corps and the Army Bearer Corps. This was, however, considered to be fraught with difficulties.

The DMS in India (Lieut.-General Sir T. J. O'Donnel) considered that the committee had not faced fully the military issues involved, as the necessity for reorganisation was mainly due to the comparative inefficiency, under war conditions, of the IMS, and that the committee had proposed a service which nominally was primarily military, but from which the best men would be withdrawn for permanent civil employment. He considered that the retention of the RAMC in India was necessary not only for providing a European service corps for British troops, but for keeping the military medical organisation in India in touch with the progress in military medical science. What was wanted, he said, was a reorganisation of the medical services of the Indian Army, the introduction of the Indian station hospital system and the remedying of the grievances of the IMS as regards pay, leave and promotion.

#### BURTCHAELL SCHEME

Lieut.-General C. H. Burtchaell, who succeeded General O'Donnel as DMS in India, held that if a single medical corps could be formed it must be organised to meet all the requirements of Indian and British troops in peace as well as in war, whether they were employed independently, or in combination, on or beyond the frontiers of India or overseas. On the grounds of military necessity, efficiency, discipline and sentiment, officers of the medical corps of the British Army must always be available in adequate numbers to

provide for the medical requirements of British troops in India. He was in favour of the alternative scheme which was suggested and then rejected by the Verney Lovett Committee, and recommended that a new corps and a new service, the one distinct from the other, should be formed, that the new corps, the 'Royal Army Medical Corps (India)' should provide for all requirements of the Army in India, both Indian and British, in peace and war, and that the new service, the 'Imperial Indian Medical Service', a separate civil medical service independent of the Army but drawing its officers from the Army for temporary or permanent service, should fill such appointments as might be reserved for Indian or British medical officers. All officers and other ranks while serving in India were to be attached to the 'Royal Army Medical Corps (India)'. As regards Indian officers, General Burtchaell thought that the question of granting them commission in the RAMC merited consideration and that the officers of the existing IMS should retain all their existing rights and privileges.

The then DGIMS, Major General W. R. Edwards, IMS, did not agree with Generals O'Donnell and Burtchaell, who were both officers of the British service. He argued that the object of all schemes was to establish an efficient military medical service and that this could most advantageously and economically be done by the establishment of an Indian medical corps to which officers of the RAMC could be seconded on the same rates of pay as for its permanent members. If, on the other hand, the 'RAMC (India)' was to be introduced, the admission of Indians without any reservation should be *sine qua non*. He finally pointed out that every possible regular RAMC officer was recalled to Europe during the war, and that India was left to carry on with inexperienced and even untrained temporary officers. In other words, the regular RAMC officer in India acted as a reserve for the RAMC in the United Kingdom, instead of India being able, in time of need, to draw on RAMC officers from England. Throughout the war the IMS military officer had complained that he was always dominated by the RAMC. The remedy was that the Indian service should no longer be subjected to the control of an alien DMS and condemned for administrative breakdowns for which it was not responsible.

Finally, a small committee of the officers was formed, which lent strength to the views of General Edwards. The committee considered that the only practical solution was that the IMS should take over the whole of the military medical service in India and that there was no reason why an Indian medical corps, organised on the same lines as the RAMC and including the IMD and attached hospital services, should not take charge of the British Army in India.

#### REPORT OF THE ARMY IN INDIA COMMITTEE

While the Government of India were considering the report of the Verney Lovett Committee, Esher Committee (Army in India



Committee) was appointed in January 1919, to enquire into and report upon the organisation of the Army in India, including its relation with the War Office and the India Office and the relation of the two offices with one another. This committee had before it the proposals of the Verney Lovett Committee and the two other schemes, one suggested by General Burtchaell and the other suggested by General Edwards. It rejected all schemes for the amalgamation of the two services. In its view, the continuance of the two services was unobjectionable so long as the two Armies remained separate. Friction and jealousy must, however, be eliminated. They therefore made proposals designed to maintain the IMS in its position as the premier medical service in India, to improve its position as a military service, and to secure more harmonious working and closer co-operation between the IMS and the RAMC. These proposals, *inter alia*, included joint examinations for entrance to the two services, similar rules and periods of service for promotions to Major, recommendations regarding conditions of civil employ of IMS officers and war reserve, and, most important of all, that the post of DMS should be held alternately by the two services.

The Government of India, meanwhile, had consulted the local governments regarding the recommendations of the Verney Lovett Committee. All were agreed as to the advisability of constituting a unified medical service. The Government of India reported to the Secretary of State, in a lengthy despatch of November 1920, that they shared the views of the Verney Lovett Committee as regards a unified medical service, but at the same time considered it essential that officers of the RAMC should participate in the professional advantages resulting from Indian experience, in their own interest as well as in the interest of the British soldier. In their opinion, the only method of unification was a continuation of the arrangement whereby all RAMC officers served in India for five years, extensible to seven years. Those who wished to remain in India beyond that period should be transferred to the Indian service. Further, in order to attract a good class of British competitor for medical service in India, a large number of residuary appointments must be provided. The Government of India fixed the number of these appointments at 180. It was recommended that the other categories on the civil side should be ordinary war reserve up to ten years' total service ; special war reserve up to sixteen years' total service and officers over sixteen years' service, who would be recalled in only serious emergency, for service as specialists and consultants.

According to the Government of India, the alternative scheme of handing over the medical care of all troops in India to the RAMC involved the separation of the military from the civil medical service and, consequently, the disappearance of the IMS as a military formation, and was, therefore, not desirable.

The Government of India further proposed that the proportion of Indians to be recruited to the IMS should not be less than 40 per cent. of the vacancies in any one year and that this percentage should

be maintained in both military and civil cadres. This percentage, in the course of a few years, was expected to result in some 64 per cent of the superior appointments on the civil side and 40 per cent of the appointments on the military side being held by the Indians.

This lengthy and comprehensive despatch never received a complete reply from the Secretary of State for India and the question of unification was not mentioned again for some years.

#### CIVIL EMPLOYMENT UNDER THE REFORMED CONSTITUTION

Meanwhile the question of the number of IMS officers to be employed in the provinces, since civil medical services had become a transferred subject under the new reforms, was under consideration. Current Indian political opinion everywhere was clearly in favour of drastic reduction in the number of superior posts reserved for the IMS as well as of throwing open the technical and professorial appointments. The opinion of the provincial legislative councils was almost entirely against the continuance of the IMS in civil employ. The uncertainty of the future of the services had also resulted in a disinclination on the part of Europeans to offer themselves as candidates for the IMS. The competitive examination had to be abandoned. The Secretary of State consequently decided, in September 1922, not to proceed with the recruitment of Indians to the IMS in excess of the rate of one Indian to two Europeans.

On 22 February 1923, the Government of India again addressed the Secretary of State, in continuation and partial supersession of the despatch of November 1920. In that despatch they had shown the pre-war strength of the IMS, its then existing strength and their suggestions for its future strength. The figures were —

	<i>Military</i>	<i>Civil</i>
Pre war	274	506
Existing	350	331
Proposed	610 <sup>4</sup>	484

The Government of India had already reduced the demand from 610 to 520 officers as the peace-time military establishments in this despatch. The Government of India finally decided to act on the old system, *i.e.*, that the IMS would continue to supply officers to hold a large number of civil medical posts.

#### LEE COMMISSION

The question of the amalgamation of the civil and military cadres was again taken up by the Royal Commission on the Superior Services in India (Lee Commission) which published its report in 1924. As regards the medical services, the commission recognised the fact that the existence of two separate services was cumbersome

<sup>4</sup> Including seconded RAMC officers for service with British troops

and uneconomical. They proposed the adoption of the Burtchaell scheme and made the following recommendations :—

- (1) A civil medical service should be constituted in each province by a Public Service Commission.
- (ii) Every officer of the civil medical services should be made liable for military service in the event of a war involving general mobilisation.
- (iii) The minimum number of British officers to be maintained in the civil medical services should be determined by the Secretary of State in consultation with the Government of India and the local governments concerned.
- (iv) One half of the British element in the civil medical services, or a number not less than the requirements of the war reserve, whichever was larger, should be reserved for British officers to be seconded from the RAMC (India) in the manner suggested in the Burtchaell scheme, the remainder being obtained by competitive examination in England and India.
- (v) Any deficiency in the British officers quota should be met by increased secondment from the RAMC, failing which special additional recruitment should be made of officers who could be detailed primarily for service in the civil department and be available as an addition to the war reserve. They agreed with the Islington Commission (the Royal Commission of 1912-15) on the distinction between clinical and scientific chairs, and that the latter should be thrown open to all candidates.

The commission's solution of the problem of supplying British medical attendance to the British officers of the superior civil services and their families was the grouping of the districts in the province, each group having always a British medical officer stationed in a central place. They also proposed that where only military medical officers were available, their services should be available for civil officers and their families on payment of nominal fees.

The Government of India, with the approval of the Secretary of State, accepted the recommendation regarding the constitution of provincial medical services subject to (i) the employment in the provinces of an adequate military reserve, (ii) the provision of adequate medical attendance for British officers in the civil services and their families and (iii) the further consideration of the conditions necessary to secure an adequate number of British medical recruits for the needs of the Army.

The War Office, while agreeing with the conclusion of the Lee Commission that it was desirable to form a single medical service, did not approve of the Burtchaell scheme, the adoption of which had been recommended by the commission. It adhered to the view that the candidates for the RAMC must be of unmixed European blood and that Indians were not suited for the care of British troops. As this involved either the total exclusion of Indians or left them with conditions of service inferior to those of the European officers, the War Office proposed that a new service or corps, composed of both

Indians and Europeans should be formed. It was suggested that the new corps to begin with, would be composed of (i) British officers of the IMS in military employment, (ii) British officers of the IMS in civil employment who desired to return to the military branch, (iii) Indian officers of the IMS and (iv) officers of the RAMC on tour of duty in India who would be attached to the new corps. Future admissions would be open to (i) the British element by voluntary transfer from the RAMC after the completion of one tour in India and a period of service in the United Kingdom, (if insufficient numbers volunteered, the British vacancies would be filled by increasing the number of attached RAMC officers), (ii) the Indian element by competitive examination to be held simultaneously in India and London and (iii) the attached officers of the RAMC ordered for a tour of duty in India, whose number would be determined by the requirements of British troops in India.

The War Office was, however, of the opinion that the same results might be obtained by leaving the IMS as it was and supplementing it by allowing RAMC officers to undertake continuous service in India on the same lines as laid down for officers of the Royal Engineers and by separating completely the military from the civil service. It was further stated that the crucial question of recruitment must be settled before the War Office could undertake any further commitments regarding the supply of medical officers. Before undertaking any scheme they wanted to be assured that the conditions of service in India for the RAMC officers, and those of the new corps if formed, would be so improved that the existing objections to service in India would be removed, otherwise the flow of candidates was likely to be restricted for both the corps (*i.e.*, the RAMC and the new unified Indian Corps) as the unpopularity of service in India would have an adverse effect on recruitment for the RAMC.

The Government of India were definitely of the opinion that it was desirable to keep the RAMC distinct, and so keep British troops, in the matter of their medical and surgical care, outside the widening circle of change and contention attendant on the political conditions in India. Consequently, they held that the IMS, as then constituted, should be retained, primarily for the purpose of meeting the needs of the Indian Army.

On 18 June 1925, the Government of India despatched a further communication in which they stated the peace and war time requirements of the medical services and the number of civil posts which would have to be reserved for the service. Attention was, however, drawn to the fact that the arrangements proposed therein, left little scope for the employment of Indian IMS officers on the civil side, owing to the limitations imposed by the requirements of the superior civil services and the necessity of a war reserve.

On 12 August 1925, the Secretary of State, accepted the Government of India's conclusions, rejecting unification and retaining the IMS. On 13 August 1925, he again addressed a despatch to the Government of India wherein he stated that the restrictions of

opportunities for the employment of Indians on the civil side of the IMS was, in his opinion, undesirable as there would be no guarantee of a sufficiency of trained Indian officers for the war reserve ; that Indian officers would suffer a serious disadvantage in comparison with British ; that there had been no discrimination of that kind before and that this was open to obvious political objections. He desired the Government of India to consider the expediency of removing more civil posts from the control of local government in order to secure that, on the military and civil side combined, Indians should occupy at least one-third of the posts in the service. He expressed himself as doubtful whether the number of posts reserved was sufficient to make the service attractive enough to secure an adequate number of British candidates for the medical needs of the Army.

#### STRENGTH OF WAR AND PEACE ESTABLISHMENTS

On 8 July 1926, the Government of India again sent a long despatch to the Secretary of State. They laid emphasis on the fact that, though the disadvantages from which Indian officers of the service might suffer could not be denied, these would be counter-balanced by the increased attractions provided for Indian medical men generally by the reorganisation of the civil medical service on a provincial basis. They also held the view that the discrimination between Indians and Europeans in the service thus arising would not be so objectionable politically as the rejection of the recommendations of the Lee Commission with regard to the formation of provincial medical services would have been. Under the revised proposals the proportion of Indians to Europeans in the service would be Civil 90 out of 302 ; military 132 out of 402, combined 222 out of 704, *i.e.*, there would be a ratio of approximately one Indian to three Europeans not only in the service taken as a whole but also on the civil and military sides taken separately. Stress was laid on the fact that no further reservations could be made without affecting the composition of the proposed provincial services. Under the new proposals the number of posts reserved was to be 237, instead of 327 as before, so that the number of applicants to be transferred from the IMS to the provincial civil medical services was only 90.

The Government of India also considered that liability to service either on the civil or on the military side should be a definite condition of employment in the IMS for the future. They recognised that the imposition of this new condition might be interpreted as an admission that conditions of service on the civil side might become so uncongenial as to deter Europeans from volunteering themselves, but were convinced that it was a necessary adjunct of the scheme, as without it there would be no provision to ensure that the requisite number of European medical officers would be forthcoming to attend on European civil officials and their families. The provincial governments, in the opinion of the Government of India, would have no justifiable claim to relief of some part of the

cost of retaining IMS officers for the sake of the war reserve, as it might fairly be assumed that the IMS officers whom they would employ would be as useful to them in the future as they had been in the past

The Secretary of State agreed generally with the conclusions arrived at by the Government of India and described the scheme as well balanced, in as much as it might reasonably be expected to provide a satisfactory solution of the complex problems involved. With his concurrence, the reorganisation of the IMS was announced on 10 May 1928. It was stated that the IMS constituted on the existing lines would be retained, and that 302 IMS officers would be required for civil employment. Details of the posts reserved were given. A list of rules was added which included —

- (i) That liability to serve on either the civil or military side would be a definite condition of service for future entrants
- (ii) Local governments would be at liberty to return an officer to military employment without the consent of the Government of India
- (iii) All officers in civil employment would be required to state, about a year before the date on which they expected to be due for promotion to colonel, whether they intended to return to military employ, in order that they might be considered for promotion to administrative rank
- (iv) Those officers who did not elect to return to military employment would either —
  - (a) sever their connection with the IMS and become members of the provincial civil medical services on such terms as might be mutually agreed upon between themselves and the local governments, in which case they would cease to belong to the war reserve, or
  - (b) would continue to belong to the IMS, in which case they would be eligible for further promotion on the civil side and would continue to belong to the war reserve provided that they did not hold residuary appointments

#### SERVICES SUB COMMITTEE OF THE ROUND TABLE CONFERENCE

The 1928 reorganisation remained unaffected till 1931, when the Services Sub Committee of the Indian Round Table Conference of 1931 presented its report. The future of the IMS was the subject of protracted discussion and the following recommendations were made —

- (i) That in future there should be no civil branch of the IMS and that no civil appointments either under the Government of India or the provincial governments should in future be listed as being reserved for Europeans as such
- (ii) That the civil medical services should be recruited through the Public Service Commissions. In order to provide a war reserve, a clause should be inserted in the contracts of service of a sufficient number of officers requiring them to undergo such military

training and render such military service as they might be called upon to do, the extra cost involved to be borne as an Army charge.

- (iii) That, further, the governments and Public Service Commissions in India should bear in mind the requirements of the Army and the British officials in India, should take steps to recruit a fair and adequate number of European doctors to their respective civil medical services, and should be prepared to pay such salaries as would bring about this result.

The Secretary of State for India communicated the recommendations of the Services Sub-Committee of the Round Table Conference and asked for the views of the Government of India on the following points :—

- (i) The arrangements that would be necessary to maintain and recruit the IMS as a purely military service and to provide adequate military medical service on mobilisation.
- (ii) The effect that the acceptance of the Sub-Committee's recommendations would have on the undertakings already given to the members of the IMS, both on the civil and on the military side.
- (iii) The effect of the acceptance of the proposals on the civil side, both as regards the general standards of medical administration and also as regards the particular needs of the British element in the civil services, together with the views of the local governments on these points.

The Government of India replied on 25 May 1933, after more than two years. In their opinion it was clear that any voluntary undertaking by a provincial government to employ a number of British doctors, or to require their medical personnel to undergo military training or accept liability for war service, would not bind their successors. It was also very doubtful whether any provincial government would be able to attract suitable British recruits, even on very attractive terms. Finally there was no doubt, in their view, that a purely military medical corps could not be recruited for service in India on rates of pay barely sufficient to attract entrants to the IMS under its existing constitution. For these reasons the Government of India considered that the proposals of the Services Sub-Committee were at least as impossible of acceptance as the opposite extreme of preserving the *status quo*.

The solution proposed by the Government of India was to reduce the number of British officers to be employed by the provinces to the minimum required for attendance on the civil service, and to exclude, for the future, all Indian officers of the IMS from civil employ.

The Secretary of State, on 11 August 1933, expressed grave doubt as to the possibility of maintaining European recruitment to a service organised on the lines proposed by the Government of India, as it was well known that the attraction of the IMS lay in the prospects it offered of clinical, research and academic work on its civil side.

The Government of India's scheme was also designed to provide no more than a bare sufficiency for the requirements of the Army and those of the civil services. If there were failures in recruitment the entire scheme was likely to break down. Transfer to the provincial services would not, in his opinion, prove an attractive alternative. He had consulted the BMA, which was of the opinion that under such a scheme recruitment could not be relied upon. The Secretary of State was forced to the conclusion that there would be great difficulty in finding any satisfactory alternative to maintaining the IMS as an all India medical service. He went on to say "The fact which I desire to emphasise at present is that the IMS is primarily a military service, and must be primarily constituted to meet the requirements of defence. The subject of defence was to be federal responsibility, and to that extent was to be removed from the purview of the provinces. But the provinces themselves cannot disclaim interest in defence requirements, since the protection that they afford obviously extends to the provinces as integral parts of India. They cannot, therefore, claim that nothing shall be done in the name of defence which might be held to derogate from their autonomy. There is no doubt that the requirements of defence can best be met, all other consideration apart, by maintaining the IMS in its present form."

He made it clear that the alternative proposed by the Government of India had not the necessary weight, and was of the opinion that the permanent exclusion of Indian officers of the IMS from civil employ might be hardly less unpopular than the retention of the IMS as an all India service. He concluded by stating that the Government of India should weigh the advantages and disadvantages of retaining the IMS as such, with such reductions as might seem feasible.

The Government of India on 23 December 1933, proposed the following scheme —

- (i) Provinces should be required by statute or statutory rule to employ not less than X IMS officers, British and Indian, of whom not less than Y should be residuary, and should be given the maximum freedom possible in choice of officers—i.e., they should make their own selection after considering the recommendation of the DGIMS.
- (ii) After seven years civil employment, during which officers would possess a claim to return to military employ, they should, by mutual agreement with the provinces concerned, pass on to a supernumerary list and forfeit all claims to return to military employ. They would continue to be eligible for proportionate pension under the premature retirement rules, and would retain the special protection of the Secretary of State and the Governor to the same extent as members of other all India services and would be liable to recall in the event of mobilisation.
- (iii) On passing on to the supernumerary list, they would cease to be eligible for promotion but would become eligible for special pension.



- (iv) They should at all times be available for transfer or exchange between different provinces by agreement between the provinces and officers concerned, but without control by the Government of India.
- (v) The Secretary of State should continue to reserve in the provinces such posts as might be necessary to ensure that the requirements of the civil service were adequately met, but apart from this no posts should be reserved either for Indian or British officers.

The Secretary of State replied, on 9 March 1934, that he was prepared to accept the scheme, as above with certain modifications.

#### THE WARREN FISHER REPORT

An important development, in the meantime, was the publication of the Warren Fisher Committee's report on the medical branches of the Defence Services in the United Kingdom, which was presented to Parliament in July 1933. This committee had been instituted to examine ways and means of improving the conditions of service in the RAMC, which was then suffering seriously from a shortage of recruits. The increase in pay effected as a result of the enquiry in 1925-26 had had no appreciable effect and at the time of the appointment of the Warren Fisher Committee, the British Government was faced with the likelihood of complete failure to obtain recruits for the RAMC. The financial crisis of 1931 had its inevitable effect on the recommendations of the committee in as much as it necessitated that these should not result in any increase in the normal cost of the medical services. The general conclusion was that the RAMC could be made more attractive by upgrading the ranks and accelerating promotions coupled with an extended grant of charge and specialist allowances; while extra expenditure could be avoided by reducing the total establishment and, in addition, by substituting short service officers for officers with permanent commissions in the lower commissioned ranks. The main features of the scheme were accepted by the War Office. The total strength of the RAMC was 752. Of this number India had employed 264 officers, *i.e.*, over one third of the total establishment, in the ranks as under :—

Major-generals	.	.	2
Colonels	.		7
Lieut.-colonels	.		38
Majors, captains or lieutenants			217
Total	.		<hr/> 264

With the upgradings introduced as a result of the Warren Fisher Scheme, India was still required to employ the same number, but with a larger proportion in the higher and more expensive ranks, *viz.*, 15 colonels instead of 7, and 48 lieut.-colonels instead of 38. Such a distribution could only produce in India a cadre of RAMC officers definitely overstaffed with senior ranks and containing a large proportion of mere 'passengers' in the shape of short service officers, who,

until the second half of their tour of service in India, could not give full value. Their number was finally fixed at 100.

The more serious objection to the scheme, in its application to India, was that it was bound to have an effect on the IMS. The number of civil appointments open to the IMS would not be sufficient to maintain the precarious balance of recruitment in its favour if RAMC officers were placed in a definitely superior position as regards pay and promotion. If the conditions of service in the IMS were not similarly improved, officers of the two services, holding much the same appointments and in combined hospitals serving in the same unit, would find themselves serving under different terms.

If India applied any portion of the Warren Fisher proposals to the IMS it would mean much additional expense. The cost of accelerated promotions and the upgrading of lieutenant colonels' appointments was calculated to amount to Rs. 9,50,000 annually.

There was then the relative effect on the recruitment to the IMS, wherein the superior pay and prospects, the better opportunities for private practice and professional advancement afforded by the civil branch, were just sufficient to attract the candidates. Any lowering of these advantages, thus making the RAMC more attractive, could not be acceptable to the Government of India. If upgrading took place in the RAMC and was not followed by similar upgrading in the IMS, discontent was bound to result.

From the point of view of the Government of India the scheme was open to many objections and they felt that the correct solution of the problem lay in a more direct method of approach, namely, by reducing the number of appointments, if possible, by relying on private practitioners where this could be done, and by improving the pay, and particularly the pension, of the services wherever necessary. In particular they thought that much could be done, without making such radical changes in the structure and organisation of the service as a whole, to increase the attractiveness of the service by giving promotions to the rank of major and lieutenant-colonel on the same time scale as existed in the IMS and by increasing the number of colonels' appointments in such a way as to give increased pension without increasing pay.

Protracted correspondence with the Secretary of State for India followed and in the end he prevailed. The British Government was convinced that the Warren Fisher Scheme as a whole offered the only means of averting an immediate collapse of the RAMC. The Government of India as an interim measure decided to accept promotion to the rank of captain after one year's service for the IMS. An announcement of this concession was made on 3 May 1934.

#### OGILVIE REPORT

At this stage the Government of India appointed Mr. C. M. G. Ogilvie, CBE, ICS, on special duty, to make recommendations for the

reorganisation of the medical services. The terms of reference were :—

- (i) To obtain from the military authorities an estimate of the number of medical officers required for the Army in India in peace and war.
- (ii) To examine what reduction was possible in this number or in expenditure either by altering the organisation, or by employing different agencies, or by modifying the then existing terms of service.
- (iii) To consider the extent to which additional war requirements of the Army could be met by providing civil employment and the precise nature of the terms of such civil employment.
- (iv) To make recommendations as to the nature, composition, and pay of the service, bearing in mind—
  - (a) the need for economy ;
  - (b) the comparative difficulty of recruiting British officers ;
  - (c) the measures that had been adopted by the British Government on the report of the Warren Fisher Committee to overcome that difficulty, and the extent to which these recommendations had been accepted by the Government of India ,
  - (d) the proposals that had been made in the past for the reorganisation of the military medical services in India ;
  - (e) the weight to be attached, on the one hand, to the principle that British medical officers were required for attendance on British personnel, and, on the other hand, to the political objections directed against the system existing at that time

The peace establishment of medical officers of the Army in India had varied considerably from time to time. Prior to the reorganisation of 1881, when the old regimental system for both Indian and British Armies was in force, the cadre depended solely upon the number of units, battalions, cavalry regiments, batteries, *etc.*, each of which was entitled to one or two medical officers. In 1881 the station hospital system was introduced for British troops and the establishment of executive medical officers was arbitrarily fixed at 5 per 1,000 troops. Under the old regimental system the number of RAMC officers had been 373. After 1881 it was reduced to 320, *i.e.*, 5 per 1,000 for a garrison of 65,000 men. It remained at approximately that figure till 1923, when it was reduced to 290 in the first economy drive. In 1931 the financial crisis necessitated its further reduction to 264.

The strength of the IMS was 255 in 1901, and 261 in 1914. A large increase in this number was occasioned by the introduction of the station hospital system for Indian troops in 1918. In 1922-23 the strength had risen to 495. It was reduced to 354 in the 1931 depression.

Thus the total strength of the peace-time military establishment of medical officers (IMS and RAMC) was 618 in 1934, *i.e.*, only 24

more than it had been in 1914, a number which World War I had proved to be quite insufficient. Several improvements had since taken place in equipment and standard of treatment of Indian troops. Station hospitals had been provided with adequate staff, accommodation, furniture and equipment. Greater attention was being paid to prevention of disease and to the promotion of hygiene. The rudimentary arrangements existing in pre war days had disappeared and the sick, Indian soldier then received comparably superior medical attention. Medical officers were employed not only for attending the sick, but also as medical staff officers, officers commanding large hospitals, where their duties were mainly administrative, officers in-charge district and brigade laboratories, recruiting medical officers, officers commanding IHC companies, on anti-malaria duties and in food laboratories. In short there was much more work for the military medical service to do than there was before World War I.

The calculation of a proper cadre, i.e., the number of duty posts plus the necessary leave and casualty reserves, was a difficult task owing to the varying number of troops employed, their varying dispersal between commands and the necessity of maintaining some elasticity to permit ready and easy expansion in time of war. This was complicated by the fact that the IMS was the source of recruitment to a large number of civil posts, and the demands from the civil side always fluctuated. Thus an over-inflated cadre in military employ was considered not only detrimental to the interests of the service but also as a cause of increased recurring expenditure. It was required to be large enough to permit the efficient discharge of all peace-time duties and to meet small emergencies without dislocation of normal military and civil work.

An examination made in 1934, of the actual distribution of the cadre on its manifold duties disclosed the following —

	<i>RAMC</i>	<i>IMS</i>
Officers commanding hospitals	64	75
Officers commanding field ambulance		2
Staff surgeons	30	14
Recruiting medical officers		8
Medical mobilisation stores		3
IHC companies	3	7
Cantonment hospitals	12	29
Embarkation duties	2	
Anti malaria officers	3	2
Brigade laboratories	7	6
Chemical research	1	
Medical officer Royal Military School, Sanawar		1
Surgeon to the Governor of Bombay	1	
Surgeon to the G. in C.		1
Medical officer for Army Headquarters Establishments	1	
Military Food Laboratory, Kasauli	1	
Medical officer, Ishapore Factory		1
Kitchener College, Nowgong		1
Enteric laboratory, Kasauli	1	

				RAMC	IMS
Medical Store Depots	.	..	...	...	4
Specialists	.	..	...	54	25
Officers on Millbank Course	.			..	10
Administrative		..	..	28	27
General duty	.		.	57	138
Total	.	.	.	265	354

The total number of beds in military hospitals in India was 11,916 for both Indian and British troops, and the total strength of the Army in India, exclusive of 16,350 families and 30,000 followers, was 212,933. In the United Kingdom there were eight medical officers to every two thousand troops, and in India approximately five per two thousand troops.

The strength employed was, therefore, not excessive for purely peace-time duties, but was incapable of taking over even a small frontier war without augmentation, as was proved by the Mohmand-Bajaur operations in 1933. During these operations roughly three-fifths of a division was employed but to meet even this small commitment military medical arrangements throughout India were disorganised. Not only were officers on leave in the Northern Command recalled, but also officers from the Eastern and Southern Commands, and even two officers on leave in the United Kingdom had to be recalled ; the DGIMS was asked to revert two officers from civil ; and in addition twenty-three AIRO were embodied.

Therefore, to make a permanent provision to meet such small operations (and these were of frequent occurrence) and to give a measure of elasticity to the cadres of the medical military services, the minimum requirements were computed at 280 RAMC officers and 373 IMS officers.

The number of military medical officers required by the Army in India in the event of general mobilisation fluctuated from time to time in line with the variations in the general staff plans and in the strength of the field army to be employed. The total war establishment required in 1926 was 734 Indian and 686 British medical officers. The requirements in 1934 were estimated at 1,045 officers for the first two months after mobilisation, and were based on the defence of India against possible aggression, but the employment of any part of the Army in India for war overseas was not envisaged. Of the 1,045 medical officers, 474 Indian and 200 British were required for the Indian Army and 371 British for the British units. With regard to the Indian officers, 154 were serving on the peace-time establishment, which could provide 145 on mobilisation, leaving 329 to be found from immediately available sources. This number could be held in the AIRO. As regards British officers, after allowing for a certain number of sick, *etc*, and peace establishments, the Army could provide on mobilisation 189 British IMS officers and 253 RAMC *i.e.*, a total of 442 British officers against the required 571. The

remaining 129 could, therefore, only be found from the British IMS in civil employ

It was suggested by Mr Ogilvie that the ratio between the Indian and British officers, which was then fixed at one Indian to two British, should be abandoned in the case of the civil cadre as it was difficult to maintain, and that on the military side this ratio should be fixed at two Indian to three British officers. If this ratio were adopted, the peace-time cadre of the IMS at its then existing strength of 354 would be 141 Indian and 213 British and the reserve of British officers required from civil employ would be reduced from 129 to 118.

The final composition of the service, excluding officers in civil employment, was proposed to be Indian officers, IMS 139, British officers, RAMC 245, British officers, IMS 217, and IMD 52 in 17 appointments then held by the IMS and 35 in those held by the RAMC, making a total of 653 officers. On mobilisation, this number was expected to yield approximately 234 RAMC, 206 British IMS and 50 IMD officers, making a total of 490 British officers. This was estimated to leave only 81 to be found from the war reserve, 30 from the Central Government and 51 from the provinces.

With regard to the question of the civil and military cadres of the IMS, Mr Ogilvie was of the opinion that in the interests of the autonomous provincial governments of the future and of the independent medical profession, the war reserve of the IMS in civil employment should consist of British officers only. The disappearance of the war reserve of regular Indian IMS officers was undesirable, yet its retention was not considered a matter of military necessity. It was suggested that the reserved appointments in civil employ of British officers should be limited as far as possible to the requirements of the war reserve and the needs of the superior British Civil Servants and their families, Indian officers IMS should accordingly be eligible for very few reserved civil appointments and the Army should supply the Central Government and the provincial governments with as many Indian officers IMS as they might wish to employ, should they decide to draw upon that source for Indianisation.

No scheme for the amalgamation of the IMS and RAMC and no proposal for the creation of a unified military medical service or for making the RAMC the only military medical corps in India was considered feasible.

Mr Ogilvie proposed that the short service system for the recruitment of Indians to the IMS, which existed in the form of temporary commissions, should be adopted as a permanent feature.

The Ogilvie report was submitted to the Government of India in September 1934. After protracted correspondence on the subject between the Secretary of State, the Central Government and the provincial governments which lasted for two and a half years, Resolution No. 205 of 25 March 1937, regarding changes to be made in the organisation, distribution, and terms of service of the military medical

services in India, with effect from the introduction of Part III of the Government of India Act, 1935, was issued.

The salient features of the resolution were that the strength of the IMS in military employment would be 364 ; that the RAMC in India would be limited to 268 ; that the future establishment of the IMD for employment with British and Indian troops in peace would remain unchanged ; that on the civil side the strength of the IMS would be 220, of whom 147 would constitute the war reserve ; that the British officers of the IMS in civil employment would be distributed in the Central and Provincial Governments, where they would be available for attendance on British members of the superior civil services and their families ; that the new entrants to the IMS would be given short service commissions for five years ; that recruitment to the permanent cadre of the service would be made by nomination, on the recommendation of a Selection Board, from amongst such short service commissioned officers, and that suitable modifications in the pay, promotion and pensions would be made.<sup>5</sup>

## APPENDIX XII

### The Early History of the Indian Medical Department

The Indian Medical Department, which formed an important part of the military medical organisation, came into existence as the Indian Subordinate Medical Department. In Bengal it was constituted in the first years of the nineteenth century. A scheme for training boys, from the upper and lower orphan schools and from the free schools, as compounders and dressers and ultimately as sub-assistant surgeons was started in Bengal. Similar schemes were started in Madras and Bombay. In Madras the department was organised into two branches, apothecaries and dressers, in 1827. The latter were designated hospital assistants in 1868. A similar reorganisation took place in Bengal in June 1868.

The apothecary class consisted of senior apothecary, apothecary first and second class, assistant apothecary first and second class, and hospital apprentices. All ranks above hospital apprentices ranked as warrant officer. The three sub-medical departments of the three presidencies were amalgamated in 1895.

#### ASSISTANT SURGEONS' BRANCH

On 12 March 1894, the title of apothecary was changed to assistant surgeon. This branch consisted of Europeans and Anglo-Indians who possessed certain medical qualifications which were not registerable in the United Kingdom. Recruitment upto 1920, was made through a competitive examination equivalent to standard VIII, from amongst Europeans and Anglo Indians between the ages of sixteen and twenty years. Selected candidates were sent to medical colleges at Calcutta, Bombay and Madras, to undergo a four years' course of professional training at government expense.<sup>1</sup>

From 1921 to 1933 recruitment was by selection. In 1934 a special selection board was constituted. This board consisted of the DGIMS, the DMS, an officer nominated by the AG, ADGIMS and an Anglo-Indian member. On passing the final examination the military students were gazetted as warrant officers and entered the service as fourth class assistant surgeons. They were meant exclusively for service with British troops and were attached to British station hospitals where their duties included those of clerk, compounder, ward master, steward and medical store-keeper.

In September 1911, the honorary commissioned ranks of major, captain and lieutenant were introduced. Promotion to the grade of senior assistant surgeon with the honorary rank of major was

<sup>1</sup> Crawford D. G. (1914) *A History of the Indian Medical Service (1600-1913)* London W. Thacker & Co.



normally authorised after fifteen years' service in the commissioned grade. Besides the commissioned ranks, the ranks authorised were conductor for first and second class assistant surgeons and sub-conductor for third and fourth class.

Considerable modifications were made in the pay and allowances of the assistant surgeons from time to time. Before World War II the rates of pay were as follows .—<sup>2</sup>

	<i>Rupees per month</i>
<i>Senior assistant surgeons</i>	
Lieutenant ..	600
Lieutenant after five years' service .	650
Captain *	750
Major ..	850
Major after four years' service .	1,000
<i>Assistant surgeons</i>	
Fourth class, first and second year	200
Fourth class, third, fourth and fifth year	220
Fourth class, sixth and subsequent years .	250
Efficiency bar .	
Third class, first, second and third year .	300
Third class, fourth and subsequent years .	330
Efficiency bar and examination	
Second class, first, second and third year	380
Second class, fourth and subsequent years	400
Efficiency bar	
First class, first, second and third year .	450
First class, fourth and subsequent years	500

In addition to their pay they received charge pay when actually holding specified appointments.

#### SUB-ASSISTANT SURGEON'S BRANCH

From the very beginning of the military medical services of the East India Company and, later of the Crown, Indian medical assistants were attached to the Indian regiments. Later, with the constitution of the military subordinate medical departments in the three presidencies, a regular footing was given to the service. In 1868 the hospital assistants class was constituted. This class was divided into first, second and third class hospital assistants and medical pupils. In 1900 the service was reorganised and considerably increased rates of pay were granted. The senior hospital assistants were granted Viceroy's commissioned ranks, first class as subedars and second class as jemadars. They were, however, considered junior to all military assistant surgeons.

In April 1910, the designation of hospital assistant was changed to sub-assistant surgeon. This branch consisted entirely of Indians. Recruitment was originally made by selection from among Indian candidates of all classes between the ages of sixteen and twenty years

<sup>2</sup> P & A Regs Vol I

who offered themselves at the beginning of each session to the principals of medical schools at Agra, Lahore, Bombay and Madras

Military students were educated at government expense. They attended a four years' course of professional training and were required to pass the licentiate examination. On admission to the department they were gazetted as third class sub-assistant surgeons and held the rank of warrant officer. They were employed to assist IMS officers in the medical care of Indian troops. On 2 October 1918, the Indian Subordinate Medical Department was designated the Indian Medical Department.

In 1932 the training of such assistant surgeons at government expense was discontinued. Further permanent recruitment to the cadre was confined to qualified medical students educated in medical schools at government expense but not admitted to the service on account of retrenchment, and who had joined the sub-assistant surgeon's reserve. In 1938 it was decided to make recruitment from the open market. A selection board consisting of the DGIMS, the DMS or his representative, a representative of the AG's branch and DDGIMS was set up for this purpose.<sup>3</sup>

With effect from 13 May 1912, the following rates of pay were sanctioned —

	<i>Rupees per month</i>
<i>Senior sub assistant surgeons</i>	
First class, ranking as subedar	110
Second class, ranking as jemadar	90
<i>Indian WOs</i>	
Sub assistant surgeon, first class	70
Sub assistant surgeon, second class	50
Sub assistant surgeon, third class	35

Consequent upon the introduction of the Indian station hospitals the following changes were made in the pay and allowances of sub-assistant surgeons —

	<i>Rupees per month</i>
Senior sub assistant surgeon, first class	140
Senior sub assistant surgeon, second class	125
Sub assistant surgeon, first class (having more than fifteen years service)	110

Rates of pay of other classes remained as before

Existing sub medical and medical charge allowances were abolished and following were sanctioned —

	<i>Rupees per month</i>
Sub charge allowance of first class station hospital	40
Sub charge allowance of second class station hospital	30
Sub charge allowance of third class station hospital	20
Sub charge allowance of fourth class station hospital	15

Later the pay of the sub-assistant surgeon was refixed. Selected sub-assistant surgeons were also granted honorary commissions. Before World War II, the rates were as follows :—<sup>4</sup>

	<i>Rupees per month</i>
Captain	500
Lieutenant	400
Subedar major	200
Subedar	160-5-175
Jemadar	75-5-95
Warrant officers	70
Indian medical students first to fourth year	12
An orderly admitted to a medical school	The pay and allowances received in the IHC

In addition they received charge allowance for the charge and subordinate charge of certain appointments.

## APPENDIX XIII

### The Recommendations of the Medical Personnel ( Army in India ) Mission, 1942-43

From their investigations and from experience it was evident to the mission that the Army medical authorities in India had, under most unfavourable circumstances, endeavoured to build up a medical service to meet the requirements of an army whose size and rate of expansion had not been clearly envisaged. Under those circumstances, with the personnel available and under the existing conditions of the service, all that was possible had been done, but in the opinion of the mission a breakdown of the medical services could not be long delayed if existing conditions were permitted to continue.

Great stress had been laid on the shortage of doctors, and that was a serious difficulty which had to be met, but the real danger, in the opinion of the mission, lay in the quality of the personnel in the IHC and the scarcity of trained nurses. Drastic and immediate action was necessary to avoid the danger, which was imminent, and to provide satisfactory medical services for the Indian Army for the duration of hostilities, without detriment to the medical care of the civil population.

The problem could, the mission considered, only be solved by a complete reorganisation of the medical services. With regard to the question of obtaining an adequate supply of doctors, the mission felt that although India was capable of supplying most of the doctors required, yet, in the unanimous opinion of the members, for the present a small number of European doctors should be sent to India from the United Kingdom.

Having arrived at the above conclusions the mission made the following recommendations —

#### MAJOR RECOMMENDATIONS

*Medical Officers* The many claims for civil and service needs upon the medical profession in the United Kingdom made it impossible for any considerable number of doctors to be expected from that source. A full knowledge of the grave shortage of doctors in the United Kingdom and an examination of the situation in India had convinced the mission that India must largely depend for the supply of doctors for the Army on her own resources. This would, moreover be in accord with the aspirations and privileges of the Indian medical profession.

The problem of finding doctors for the Indian Army was therefore one which, in the main, India herself must solve and they were convinced of her ability to do so. For the supply of doctors two sources existed in India and in many ways they presented a striking contrast

The graduates numbered some 12,000 ; they had passed through a full medical curriculum and they had reached a standard which was accepted by the General Medical Council of England. Some of them had, in fact, attained high distinction in their profession and many were capable of specialised work of the highest class.

The licentiates numbered about 35,000 and varied considerably both in primary education and in professional attainments. All had, however, passed examinations at the end of a four years' curriculum, extended in many instances to five years, and many of them had had experience in practice over several years. The best of this class were in no way inferior, either in intelligence or professional ability, to many of the graduates. After actual contact with them and after seeing their work, the mission judged that they were a hard working body of men and that, although their attainments were for the most part limited to general practice, they seemed to be capable of really useful work in the field. They had a real grievance in that they were not accorded the recognition, either in status or emoluments, due to any member of the medical profession.

The mission were satisfied that if suitable conditions of service with full commissions and rates of pay were offered to the licentiates it would be possible to recruit from among them an adequate number of competent doctors for the general requirements of the Army. If this recruitment was successful it seemed improbable that the graduates would remain unaffected ; indeed it would almost certainly be possible to obtain from their ranks the specialists required. Indian doctors had, however, on the whole, little experience of military requirements and the mission, therefore, recommended that for the present a proportion of European doctors, which they estimated at 10 per cent. of the future intake during the war, should be supplied from the United Kingdom. But they reiterated their firm opinion that the great majority of the doctors for the Indian Army should and must be found in India.

*Ancillary Services* . The success of a doctor's work is largely dependent upon the assistance he receives from auxiliary services, and unless these are efficient he is hampered at every turn.

*QAIMNS and RAMC other ranks* : In British military hospitals the medical officer is assisted by the unrivalled nursing service provided by the QAIMNS and by the highly trained nursing orderlies of the RAMC.

*IMNS* : In Indian hospitals these vital adjuncts to the work of the medical officer were lacking. The creation of a nursing service comparable to that of the United Kingdom would involve a revolution in social outlook, but it would probably ultimately be developed out of the existing Indian Military Nursing Service. A great impulse would be given to its development if this could be reorganised as a Royal Service on lines similar to those so successfully initiated by Queen Alexandra.

*Nursing Sepoy—IHC* : The nursing sepoy was recruited from a class of such low intelligence that only a few could be expected to reach

a satisfactory standard of training. A fundamental mistake had thus been made in recruiting such personnel for this important work and an immediate attempt had obviously to be made to attract to the service men of a superior class. Such a class was available and, with adequate pay and prospects, recruits would be forthcoming in sufficient numbers.

The mission thus felt that the time had come when the whole problem of recruitment for this branch of hospital service for the forces should be considered afresh and they suggested a bold reconstruction on an entirely new basis, *i.e.*, the formation of a complete Indian Army Medical Corps on the British model—the Royal Army Medical Corps—which had met with such success.

The formation of such a corps would possess several distinctly beneficial results. A homogeneous service consisting of officers and other ranks would be established, the licentiates would be granted commissions and would attain the status to which they were entitled, while the other ranks personnel would have opened to them a career and promotion which so far had been available only to those who had certain trade qualifications.

It was, however, imperative that all recruits for commission in the corps should pass through a course of training extending over at least three months, during which time they should be on probation. In this, in addition to military duties, they should be trained in certain special subjects essential for their work, such as anaesthesia, blood transfusion, war wounds, nutrition, tropical diseases, and hygiene. The course would have a further advantage in that it would allow of some degree of classification and selection.

For the training of other ranks recruits, WOs and NCOs could be provided from existing sources and from compounders and male nurses, and the possibility of promotion to such positions would be a valuable incentive. It was desirable that all recruits should be trained in elementary nursing and first aid and that this should be an essential qualification before training and mustering in any other trade such as clerks and store keepers.

The mission were impressed by the work being carried out at the training centres they had visited, although they were struck by the small amount of technical training given. They considered the latter of paramount importance and were of the opinion that the military medical authorities should have complete control over these duties, and be entirely responsible for the syllabus of technical training and that general service training should be reduced to a minimum. If the proper class of men could be recruited and technical corps training instituted, the same effort and expenditure would produce results immeasurably superior to anything possible at present.

The mission felt that the announcement of such a corps would have a profound effect, but they were convinced that, to be of any service to the war effort, its immediate formation was imperative.